











## ADVERTISEMENTS.

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Dr. Lardner's Cabinet Cyclopædia.

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### CABINET OF NATURAL HISTORY.

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#### PROSPECTUS.

THIS important division of the Cyclopædia being now in a forward state of preparation, the Editor has considered it right to lay before the Subscribers and the public the details of the plan which he has thought it advisable to adopt. As originally intended, the subject of Natural History will be comprised in about 17 volumes. It was the design of the Editor to have distributed the subjects of this series among a considerable number of eminent Naturalists, who had been prevailed on to undertake them; but it was subsequently found a matter of almost insuperable difficulty to bring so many individuals into that degree of co-operation, and that unity of design, which were deemed essential to the excellence of the performance. The execution of the series has therefore been confided to individuals more limited in number, but not less eminent in scientific reputation. By this means, the work has lately advanced so fast towards its completion that its publication will be speedily commenced, and will be continued at short and regular intervals.

The plan of the work, and the style of its execution, will be in strict accordance with the principles laid down in the original prospectus of the Cyclopædia. The object of the Editor and his associates will be, as there stated, "to present the science in a form which shall be universally intelligible; to render it attractive to the general reader, yet at the same time to inculcate sound principles; and by transfusing through the whole work a philosophic spirit, not only to stimulate the diffusion of knowledge, but to raise the tone of the public mind, and to awaken a taste for the contemplation of the works of nature."

The series will consist of Zoology, Botany, Mineralogy, and Geology.

To Zoology will be devoted about fourteen volumes, this part of the work has been prepared by Mr. Swainson, with the exception of the volume on MAN, which has been written by Dr.

*Cabinet of Natural History, continued.*

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A volume will be devoted to Botany; one to Mineralogy, which is in preparation by Mr. Levi; and another to Geology, which has been undertaken by the Rev. W. D. Conybeare.

The whole series will be copiously illustrated and embellished by wood cuts engraved by Branston, from original drawings, prepared by the authors themselves and by Mr. Thomas Landseer, such drawings being almost invariably made from nature.

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History.

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A TREATISE  
ON THE  
ARTS, MANUFACTURES, MANNERS, AND INSTITUTIONS  
OF THE  
GREEKS AND ROMANS.  
VOL. I.

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LONDON:  
PRINTED FOR  
LONGMAN, REES, ORME, BROWN, GREEN, & LONGMAN,  
PATERNOSTER-ROW;  
AND JOHN TAYLOR,  
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1833.



*A TREATISE*  
 (ON)  
 THE ARTS, MANUFACTURES,  
 Manners, and Institutions  
*of the*  
 GREEKS AND ROMANS,  
 IN TWO VOLUMES.

VOL. I.



*Gate of the Lions (Museum), p. 20.*

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## ADVERTISEMENT.

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IN the interval which must elapse between the publication of the present and succeeding volume of this Treatise, the Editor is aware that it will appear to the Reader that too much importance has been assigned to some subjects, such as Architecture; too little to others, such as Manners and Customs; while a few, by no means less attractive, are wholly omitted. He begs, however, that the judgment of the critic on these points may be suspended until the whole work shall be before him, as the Editor can give satisfactory assurance that such objections will then be in a great degree, if not altogether, removed. The material arts and monuments of antiquity being dismissed in the present volume, the second will be exclusively devoted to Laws, Literature, Philosophy, Religion, Manners, Customs; to subjects which, as they have their foundation in human nature, must at all times be interesting, not merely to the antiquary, but to the general reader. This arrangement, by giving diversity to its subjects, will,

he trusts, confer a more agreeable character on it, and cause the two volumes in connection to be regarded as a useful guide to the study of ancient institutions.

*London, Sept. 1833.*

# ANALYTICAL TABLE

OF

## CLASSICAL ANTIQUITIES.

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#### THE ARTS, ESPECIALLY THE ORDINARY ONES OF LIFE

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**ANTIQUITIES,  
CHIEFLY CLASSICAL.**

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**PART I.  
THE ARTS,  
ESPECIALLY THE ORDINARY ONES OF LIFE.**





## SECTION I.

ARTS OF THE EASTERN WORLD,  
THOSE OF GREECE.

### CHAPTER I.

#### ARCHITECTURE.

(1.) "DURING the first ages, after the deluge," says sir William Drummond, "men must have been chiefly dependent for support on the produce of the chase, and on their flocks and herds. Accordingly, before the time of Nimrod or Belus, the inhabitants of Assyria appear to have been chiefly composed of wandering hordes, that lived by the produce of the chase, or by the sure means of nourishment obtained from their flocks and herds, and from the spots of ground that were casually cultivated as occasion required. This great prince united his subjects in cities; and consequently changed entirely their political existence." Thus sir William Drummond, who is inclined to make Nimrod coetaneous with Abraham, though, according to Scripture, it is impossible, — the former having been great grandson of Noah, the latter eleventh in descent. The facility of preparing brick by mere solar heat, and the great quantity of cement (bitumen) which voluntarily presented itself, enabled the Chaldeans to erect immense structures in a very short time, and at a moderate expense.\* Accordingly, cities were founded; and the first known in history is Babel (*Porta Beli*, according to sir William Drummond), or Baby-

\* Archæologia, xiv. 60.

lon. However improved that city may have been by Semiramis, wife of Ninus, son of Nimrod or Belus, the erection of the celebrated tower is generally ascribed to Nimrod himself. Sir William Drummond\*, indeed, contends that the scriptural tower was commenced at Senn; the *Kizwa* or Cænæ of Xenophon, and that the tower of *Belus* was a subsequent and more modest structure, upon a different site, though the work of the same founder. In an architectural view, whether the tower of Babel and that of Belus be one and the same, or not, is of no moment, because they are admitted to have been contemporary. Most authors, however, identify them. The cause of the foundation of the former tower is stated in Scripture to have been an intention to reach to heaven; perhaps a figurative expression, which seems to imply its use as an observatory, — Belus being deemed the inventor of astronomy†; and the sky of Chaldea, at midnight, so cloudless, that the first rudiments of that science are said to have been derived from the shepherds, who lay gazing on the constellations.‡ As to the confusion of tongues, it may imply that the people of the several provinces employed on the work did not understand each other; for the language of the natives of Australia, though they are evidently of the same race, is so diversified at the present day, that, within a comparatively short distance, one is just as unintelligible to the other as both are to an European.§

(2.) Whether the *Mujellibah* or the *Birs Nemroud* be the remains of this tower is not to our purpose, the materials and construction of both being similar. Both the *Mujellibah* and *Tull Akerkouf* being in ruin, the following representation of that more perfect specimen of Babylonian pyramids, the *Birs Nemroud*, may be more satisfactory.

If brick be the chief material, it is to be recollected that the situation of a people, and the nature of the

\* Origines, b. i. c. 12. † Plin. vi. 26.

‡ Mignan's Chaldea, 85.

§ Picture of Australia, 202.

materials within their reach, mostly influence their architecture.

The Babylonian bricks are found to be of two kinds, the *sun-dried* and *kiln-burnt*.



BIRS NEMROUD.

In countries where the sun is powerful, and it seldom rains,—in Chaldea not for eight months in the year, occasionally not for two years and a half together\*,—the sun-dried bricks were sufficient for most purposes. The first walls of Mantinea wholly consisted of them, and they resisted warlike engines better than stone. They were still not proof against water†; but through elevated situation, or facings of burnt brick, and air-holes in the building, they were secured from deliquescence.‡ Analysis shows that they were composed of pure clay. Although only baked in the sun, they are so solid and compact as to ring, if placed on the edge and gently stricken by any metallic body.§ They were shaped in moulds, supposed of wood by captain Mignan, as appears from their having figures and inscriptions; and were beaten up with straw or rush to increase cohesion. Their dimensions are the same as those of the kiln-dried kind.|| It has been said that

\* Archæolog. xiv. 58.

† Mignan, 207, &c.

|| Mignan, 206, 209, 223.

† Dodwell's Greece, ii. 423—425.

§ Archæolog. xiv. 55.

they were limited to ordinary buildings; but existing remains show that they were used for the base and interior of the Mujellibah, Birs, and other grand fabrics, and that they were bound in their courses by layers of mortar and reeds.

The kiln-burnt bricks were of far superior induration. Such was their strength and tenacity, that they compose the piers and arches of a bridge mentioned by the prophet Baruch, and still remaining.\* Some of them were varnished, and adorned with figures. They have been found disposed in mosaic, so as to form the figures of a cow, and sun, and moon.† The colour is a bright red, or pale yellow; in the unburnt kind, that of stone. The sizes vary from twelve or thirteen inches long by three or four thick, to the largest known, which measure nineteen inches three quarters square by three and a half thick, with the written characters along the edge, instead of being in an upright column on the face.‡ Some of these bricks have been found of a cylindrical form, inclining to the barrel entasis. They are made of the very finest furnace-baked clay, and are inscribed with a small running hand alone. From the perforation of some through the centre or sides, they are presumed to have been worn as amulets or talismans. The specimen engraved in captain Mignan's work§ is nine inches in length by sixteen in circumference.

At the Birs Nemroud are brown and black masses of brick-work, more or less changed into a vitrified state. Alberti|| says, that there were persons who liked to have bricks "*vitro illitos*" (*coated with glass*); and he mentions the proper kind of earth, as well as the process, which was similar to that of potters. These masses are, however, found on the summit of the piles, and were evidently vitrified by subsequent conflagration. Thus they resemble "*vitrified forts*," which are thought to have been formed by the immense heaps of wood burned upon the tops of hills, in the ancient fire-

\* Mignan, 197.

† Id. 188.

‡ Id. 191.

§ P. 229.

|| *De Re edificat.* l. ii. c. 10. fol. xxvii.

worship;—piles of such magnitude, that they were loftier than the hill; were visible at a distance of 1000 stadia; and heated the atmosphere to such a degree, that the spot could not be approached for several days.\*

The curiosity of these bricks, both sun-dried and kiln-burnt, is the inscription. "The language" (says Mr. Rich) "may be safely pronounced to be Chaldee; the system of letters an alphabetical, not a symbolical one; and each figure seen on the bricks a simple letter, and not a word or compound character." Of these written characters there are three different styles, answering to our large hand, small text, and round hand. The two first are found on the bricks which measure from twelve to thirteen inches square by three and a half thick; the latter on other bricks, rather less than half that size, on the cylindrical tablets, and on tablets of the same material.† It was certainly customary to inscribe astronomical observations on bricks and columns. The probability is, that all these inscriptions were of a talismanic character; for the faces, or inscribed parts, were always placed downwards, so, that the writing was never intended to be seen or read. Sometimes both the face and edge are inscribed—sometimes only the latter; and this kind is the more rare and valuable of these bricks.‡ Some of these bricks contain ten lines in an upright column, and many stamped across to the angles of the brick.§

The next enquiry is the cement. The burnt bricks were laid in bitumen, but not exclusively so; for in some instances only a simple layer of mortar occurs||, occasionally very thin.¶ The τελμα of Herodotus is the clay cement still used\*\*; and the same author says, that as fast as the earth was removed from a trench, it was converted into bricks, and baked in furnaces; and that, when it was thus prepared, melted bitumen was used instead of mortar; and that between every thirtieth

\* Williams's Geog. of Asia, 71.

† Id. 175. 177.

‡ Id. 207.

§ Id. 223.

\*\* Id. 268. Dio. 179.

† Mignan, 225.

|| Id. 177.

course of bricks there was inserted (ταρσος καλαμων) a layer of reeds. The bitumen, annexed also upon occasion to sun-dried bricks, has been subjected to experiment, and proved to be the asphaltus of nature.\* The lime appears to have been deemed most fit for the upper parts of a building. Captain Mignan, speaking of the Birs Nemroud†, says,—“The bricks here are thirteen inches long by four and one quarter thick, and are cemented together with a coarse layer of lime, upwards of an inch deep, with *an impression* only of matting or straw‡, [supposed to have adhered to the brick while in a soft state]. They are not level, but slope gently from the north face towards the east, and from the east face towards the south,—a curious circumstance. Below this is a large, deep, square hole, through which the materials of the structure are very discernible, consisting principally of sun-dried bricks of similar dimensions as the kiln-baked.”

“These appear to have been cemented together by mortar, and bruised reeds, or chopped straw, an inch in thickness; and through this mass, holes measuring two feet in height by one in width seem to penetrate to the heart of the building. Bitumen, which is found at the base of most of the ruined structures, is likewise discernible in this pile. *None is to be found in the upper portion*,—a circumstance which confirms a passage in Herodotus.”§

The layer of reeds in the “hanging gardens,” was mixed with a great quantity of bitumen, over which were two rows of bricks, closely cemented together by plaster.|| Upon digging into the base of the Birs Nemroud, captain Mignan found it composed “of coarse sun-dried bricks, fastened together by layers of mortar and reed. At the depth of fourteen feet, bitumen was observable.”¶ In

\* Archæologia, xiv. 59.

† P. 209.

‡ “The Egyptians are said to have used straw in the composition of their bricks; but there is no appearance of any thing of the kind adhering to it.”—*Analysis of a Babylonian Brick*, Archæologia, xiv. 58.

§ Διε τρηπόντας δόμων πλινθίου, &c. quoted by Capt. Mignan, 210.

|| Mignan, 181.

¶ P. 206.

some instances, neither lime nor bitumen were used, only simple clay. Captain Mignan, a most minute investigator of these remains, speaks thus of El Hamir.\* "The foundation is composed of sun-dried brick, which extends halfway up the pile, the remainder being furnace-burnt, of a coarse fabrication. This pyramidal ruin is crowned by a solid mass of masonry, the bricks of which were so soft, that pieces might easily be broken off; but those composing the interior were as firm and hard as at the Kasr, and rather larger. . . . The bricks are cemented together with a thick layer of clay; and between the courses of brick-work, at irregular distances, a layer of white substance is perceptible, varying from one quarter to an inch in thickness, not unlike burnt gypsum or the sulphate of lime. From the peculiarly mollified state of the bricks, I apprehend this white powder is nothing more than common earth, which has undergone this change by the influence of the air on the clay composing the bricks."

These white layers have been supposed to be remnants of reeds; but as there are no discernible traces of vegetable substance, captain Mignan rejects the presumption, and proceeds to say,—“Throughout the ruins small square apertures similar to those at Birs Nemroud are observable, but neither lime nor bitumen can be seen adhering to the bricks, though large pieces of the latter substance are very abundant at the base of the mound.”

The chief material of a circular mass of solid brick-work at the Mugellibah, and that which composes the ruin called Akerkouf, is a mixture of chopped straw, with slime used as cement, and regular layers of unbroken reeds between the horizontal courses of the bricks.†

At the brick columns of the Kasr and Athlah, the thinnest layer of cement imaginable holds the courses of brick-work so firmly and securely together, that captain Mignan found it utterly impossible to detach any of the bricks.‡

As to the layers of reeds, Herodotus says that they

\* P. 292.

† Mignan, 166.

‡ P. 178.

were placed at every thirtieth course; but modern travellers find them at every sixth, seventh, or eight course in Aggarkuf; and at every course in some of the buildings in Babylon.\*

The description of Babylon, by Herodotus, shows that it consisted of an exterior wall with turrets, and brazen gates, and a second wall within it of less width: houses of three and four stories, forming streets, strait and parallel. The temple of Jupiter Belus, a square structure within the enclosure, a solid tower, measuring a stadium both in width and depth; upon which tower was a second, then a third, then a fourth, and so on to the number of eight, the ascent being by a path on the outside of the towers, with resting places midway, and the summit crowned by a large temple†; a palace and citadel, both the same; and a bridge. To these Strabo, Diodorus, and Curtius add hanging gardens.

The exterior wall included a whole province, but the height and breadth have been greatly exaggerated; for the real height, perhaps, measured from the bottom of the ditch, was, according to Strabo, seventy-five feet, the thickness thirty-two. The base of a modern rampart faced with brick is about forty-eight feet, and the parapet alone eighteen feet, so that there is nothing extraordinary in these walls. Of the superstructure there are no remains, the adjacent inhabitants having carried off the materials for their own purposes.

As to the houses, there was an interval between them and the walls; they were not contiguous (because, as presumed by Curtius ‡, danger from conflagration would be thus diminished), and occupied only a portion of the city, namely, ninety square stades. In 1817, lieutenant Hende, who was previously acquainted with Mr. Rich's Memoir, visited Babylon; and the substance of his observations concerning the agreement between the superficial area of the ruins, and the square dimensions given by Curtius, is this:—

\* P. 139.

† Dio. 179, 180.

‡ B. v. c. 1.

"Mr. Rich gives two miles and 600 yards for the width, with about two miles and 1200 yards for the length of the space over which the ruins in general are found to extend. As it may be conjectured that the river has encroached, this would complete the oblong nearly to a perfect square, and would occupy a space of ten miles 1280 yards, or very near eleven miles; which, at eight stadia to the mile, would correspond within a mere trifle of the ninety stadia usually esteemed the circumference of the inner space that was built up, as described by Quintus Curtius."\*

Of the houses, no remains are particularised. Dionysius of Halicarnassus says that the earliest houses were towers; and Diodorus gives great elevation to those of Egypt. Sir William Drummond† makes a house the probable Chaldaic hieroglyph of  $\square$ , B. It is square, of two stories, with a door in the centre, and three windows on the first floor; and resembles the tower houses of Thebes, and those, like church towers without buttresses, which are represented in Belzoni's plate of the city of Bacchus. Such may be presumed was the fashion of the Babylonian dwellings.



CITY OF BACCHUS.

*The tower of Belus.* Conical structures and staged pyramids are well-known in the ancient architecture of Asia. Ecbatana was built on a conical hill, and con-

\* Pratt's Q. Cur. 2d edit. pref. 10.

† Origines, li. 343.

sisted of seven diminishing circular platforms, each distinguished by the colour of its wall; and Mr. Taylor thinks that the description of the New Jerusalem\* may mean a quadrangular pyramid of twelve stages; because no incongruity will then be implied in the measurement, which affirms that the length, breadth, and height of the city are equal.† Diodorus says, that by the advantage of the great height, the Chaldean astrologers exactly observed the rising and setting of the stars.‡ Such towers seem to have accompanied ancient cities; for, besides the Birs Nemroud, there are others yet remaining at Tull Akerkouf, and El Hamir.§ The situation and greater magnitude of the Mugellibah render that far more probably the ruin of the tower of Belus, than the Birs Nemroud; and under this assumption, some idea of its grandeur and elevation may be formed from the following statement:—

“Strabo says, that the *sepulchre* of Belus was a *pyramid* of one *stadium* in height, whose base was a square of like dimensions, and that it was ruined by Xerxes. That it was exceeding lofty may be conceived by the mode of expression of those who describe it; and if it be admitted that the whole fabric was a stadium in height, as Strabo says, and as appears probable, even this measure, which is about 500 feet, must be allowed to be a vast height for so bulky a structure raised by the hands of man; for it is about twenty feet higher than the great pyramid of Memphis, and would exceed the loftiest pile in Great Britain (Salisbury steeple) by 100 feet. But as the base of the great pyramid is about 700 feet square, or nearly half as large again as that of the tower of Belus, the solid contents of the pyramid must have been much greater. The tower, from its having a narrower base, would appear much more than twenty feet higher than the pyramid.” Hence it may be inferred, that the uppermost stories consisted more of masonry than earth; but the

\* Revel. xxi. 10—21.

† Apud Mignan, 127.

‡ Taylor's Herodotus, 725.

§ Id. 106. 120.

lower, chiefly of earth, which was retained in its place by a vast wall of sun-dried bricks, the outer part or facing of which was composed of such as had undergone the operation of fire. Strabo says, that the sides of the tower were of burnt bricks.\* Near the summit is a niche, called by the natives *serdaub*, a word signifying a cellar or vaulted cellar. Captain Mignan found, by excavation, an earthen sarcophagus, and various urns of the same material; so that, like the pyramids, it was a mausoleum.†

That there was on the summit an observatory, where the Chaldeans attentively observed the rising and setting of the sun, is noted by Diodorus‡; for Babylon is seated in a plain, and when a Chaldean observed the horoscope of any nativity, he sat in the night-time on some high promontory, or *lofty observatory*, contemplating the stars; while another sat by the woman till she was delivered. Upon parturition, it was signified to the person on the promontory or observatory, who noticed the sign then rising for the horoscope; but in the day he attended to the ascendants and sun's motion.§

Another of the works of Belus was, according to Ammianus Marcellinus||, the citadel or palace; but, according to Diodorus¶, it was the work of Semiramis, who added another on the opposite side of the river, and connected both by a bridge. It consisted of three enclosures, the walls being made of well-burnt bricks: the outer wall was sixty furlongs, seven miles and a half in compass; the second within, of a round form, was of bricks, upon which were portrayed, before burning, all sorts of living creatures, drawn from life, and skilfully represented in various colours. This was in circuit forty furlongs, 300 bricks thick, in height, (as Ctesias says, fifty orgyas, or one hundred yards,) upon which were turrets 140 yards high (a palpable exaggeration).

\* Mignan, 155.

† Id. 168, 170.

‡ L. 2. 9.

§ Townley's Maimonides, 128. from Stanley's Chaldaick Philosophy.

|| L. xxiii. Hist. Aug. ii. 418. ed. Sylburg.

¶ B. ii. c. 3.

The third and inner wall, immediately surrounding the palace, was thirty furlongs in compass. It far surmounted the middle wall both in height and thickness : on this wall and its towers were represented all sorts of animals. To this palace, likewise, Semiramis added three gates, under which were apartments of brass for entertainments, into which passages were opened by a certain engine. [A portcullis and windlass, Q. ?]

The other palace, on the eastern or opposite side of the river, was far inferior, the outer wall being only thirty furlongs in compass. The river having been turned aside into a reservoir, Semiramis built a tunnel across the old bed, for the purpose of communication between the two palaces, and then turned the stream again into the old channel. At each end of the tunnel she put brazen gates.

Captain Mignan is confident that the enormous pile, called by the natives "Al Kasr, or the palace," which rises seventy feet above the level of the plain, is the ruin of the great western palace. These remains consist of a group of round towers, varying in size, very close together, and so assimilating some of our own castles, that they might be mistaken for the ruins of one, were it not known from a Macedonian coin, published by Dr. Clarke, that walls and round towers are extremely ancient. Instead of columns there were brick piers, from sixteen to eighteen feet high, and nine thick. The Babylonian cuneiform inscriptions are traced upon the bricks ; and glazed pottery, earthen vessels, engraved marbles, a statue large as life ; varnished bricks, with the figures of a lion, sun, moon, &c. ; and calcarious sandstone glazed with brown enamel, have been found, in confirmation of the statements of the prophet Ezekiel \*, and Diodorus. As to the *brazen chambers*, and *brazen gates*, both are confirmed by ancient remains, viz. the treasury of Atreus at Mycenæ, and the metallurgic eminence of the Chaldeans.

Annexed to this palace were the famous *pensile*

\* xxiii. 14, 15.

*gardens*, or terraces, formed by rows of piers, upon which were placed large flat stones; over them a layer of reeds mixed with a great quantity of bitumen; above which were two rows of bricks, closely cemented together by plaster. Thick sheets of lead, again, covered these; and over all was laid the mould of the garden, so deep that it would admit the largest trees to take root and grow. In the upper terraces there was an aqueduct or engine, whereby water was drawn up out of the river. These terraces were raised by Nebuchadnezzar, to gratify his queen Amyctis.

In a subterranean passage, captain Mignan\* discovered a granite slab, fifteen feet long and five feet and a half wide, the surface of which exhibited bitumen, with an impression of woven matting or straw, apparently laid on in a perfect unbroken state; and this discovery seems to identify the site of the pensile gardens.

Such are the remains of ancient Babylon, which, as being the oldest city in the world, it was fit to treat diffusely. To this city we may trace the earliest known origin of *pyramids, walls and gates of towns, towers, turrets, bridges, brazen chambers, sphinxes, colossal lions, bricks, and stone-work* (the latter very partially), and various minor forms and materials of building, but no columns, epistyles, or other indicia of scientific architecture.

It has been before observed, that the materials of a country influence its architecture; and the style in which stone was chiefly used, because it was more convenient, is the next progressive state.

The Phœnicians were the people who rose to power next after the Assyrians; and we know that Solomon brought from the former country the architects who erected his temple and palace. There are reasons for thinking that the ancestors of these architects were the Cyclopes, by whom the earliest *authenticated* fabrics in stone were erected; for the assumed precedence of India,

Egypt, or Persia, is very questionable. It is certain that Moses sent out spies to explore Canaan, and inform him what cities the inhabitants lived in, "whether in tents or in strong holds;" and that they brought him back word that Hebron (not the modern town, but one upon a mountain) was built seven years before Zoan in Egypt (of which hereafter); that the cities were walled and very great; and that they saw the *giants*, the sons of Anak, which came of the *giants*.\* Now, it is well known that men of large stature were called by the ancients *Cyclopes*; and that Pezron considers them to have been the giants of the Septuagint.† The derivative from the single round eye‡ is doubted, because it is said by some to have been a corruption for *chektubes*, *chekle tubes*, a name given to them from the Phœnician *chek*, a bay, and *Lilybeum*.§ In confirmation of this etymon, it is to be remembered, that, like Virgil, in the story of Polyphemus, Cicero|| states them to have frequented bays and promontories to entrap and plunder unfortunate mariners; and that Euripides makes them homicides.¶ Homer, who first mentions them, says that they inhabited caverns on the summits of hills, and were *αθεμιστοι*, lawless, through living in the patriarchal manner of despotic family government, and through being advanced to the agricultural stage of society. In confirmation of Homer, it so happens, that the Jews were the first who introduced agriculture into the land of Canaan, and that the natives, expelled by Joshua, emigrated to Argolis and Mycenæ in the twelfth century B. C. As to making them Celts, it is contradicted by certain old authors, who say that the Celtæ were so denominated from *Celtus*, son of Polyphemus, the most memorable of the race.\*\* Of their gigantic figure, mythologically exaggerated, some idea may be formed from the figures, twenty-five feet high, backed against pilasters, at the temple at Agrigentum, commonly called the Temple of

\* Numb. c. xiii.

† Encyc. of Antiq. i. 2.

‡ Κυκλος and αψ.

§ Valpy's fundamental words of the Greek language, p. 154. n. 8.

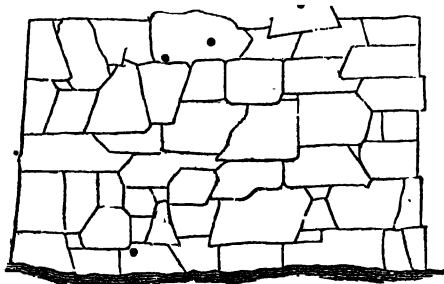
|| In Verrem, l. v.

¶ Κυκλωπες αυδακτονοι, in Cyclope.

\*\* Natali's Cornub. Mytholog. 987.

the Giants\*, and intended apparently to represent these Cyclopes, or mythological Titans. The Anakims of Scripture, too, like the Cyclopes, were a fierce and barbarous people of gigantic stature, who (as Homer says of the latter) inherited the mountains. If it be thought that the Cyclopean masonry was borrowed from Egypt, it should be remembered, that only the Babylonian style of building with bricks is mentioned by Moses, and that another portion of the Canaanites, expelled by Joshua, are the Hycsos, or Phœnician shepherds, who conquered that country. From all these coincidences, it may be fairly assumed that the Canaanites or Phœnicians expelled by Joshua, were, as believed by Pezron and Dr. Clarke, the giants of the Septuagint, the Cyclopes of the Greeks, and the Phœnicians of Euripides.

The two best authenticated and most remarkable specimens of the Cyclopean style are Tyrins and Mycænæ, which last town, Euripides says, was built in the Phœnician method. These are both ancient fortresses, and originated in insecurity; for in the Elia territory, which had a peculiar sanctity annexed to it, there are few or no remains of military architecture.† The Cyclopean style (properly so called) appertains only to these two cities; and is chiefly characterised by huge stones, of which the interstices are filled with those which are smaller, as in the following specimen. The polygonal style, where



\* Stuart's Athens, new edit. vol. 4.

† Leake's Mores, ii. 14. 180.

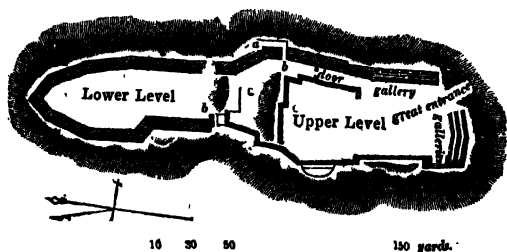
large stones are made to fit into each other, is of later date.\*

The reason why the stones were of such enormous size is, that both mining and battering by engines might be successfully resisted. The subjection of the climate of Greece to earthquakes was another motive.

Pausanias says that the Cyclopes built Tyrins for Prætus. Euripides says, that Mycenæ was the city of Perseus.† The æra of Prætus is placed by our eminent travellers on or about the year 1379 B. C., but professed chronologists attribute his reign to the twelfth and eleventh centuries, nearly 400 years after the first date, and about 100 before the Trojan war.

The general form of Tyrins is that of a shoe. The interior is divided into a lower and upper level. The latter is guarded by an additional but smaller work, and terminates in some curious arched galleries. The walls have in places a receding outline, and outworks were placed before the gates.

The plan will best explain the form. The site is an oblong rocky hill, about 250 yards long, the breadth from 40 to 80; but the citadel, not following the sinuosities of the ground, is stated to be only 220 yards by 60. The rock rises from the plain only from 20 to 50 feet.



PLAN OF TYRINS.

The walls in the highest part are now but forty-three

\* Stuart's Athens, new edit. vol. iv. p. 26.

† Mycenæ.

‡ Ibid.

feet ; they are supposed to have been originally sixty. Their general thickness is from twenty-one to twenty-five feet. Some later repairs are detected by hewn and even rectangular stones, but the finest specimens of the original work are near the remains of the eastern gate, where the ramp is supported by a wall of the same kind leading up to the gate. The principal entrance colonel Leake supposes to have been on the southern side, adjacent to the south-eastern angle of the fortress, where a sloping approach from the plain is still to be seen, leading to an opening in the walls.

In the interior of the fortress two divisions will be found, with an intermediate platform, which may have served for the defence of the upper citadel against an enemy in possession of the lower.

The entrances are all placed in such a manner that they could be commanded even *before* they were carried ; and *afterwards*, the preceding form of the outline in the intermediate platform shows that the assailing enemy could be attacked, upon passing the outer gate, both in front and flank. The great curiosity is the *Galleries*. These consist of narrow passages in the *Gothic* style, formed of immense pieces of rock projecting over each other, and chipped away into the form of the vault described. They are formed in the body of the wall ; and as colonel Leake is professionally the best judge of such subjects, and as the main use of archæology is to furnish precedents of good or bad examples, it is necessary for the purpose of uniting instruction with entertainment, that the remarks of this excellent writer should be given in his own words. " There were galleries in the body of the wall of the following singular construction : — In the eastern wall, where they are better preserved, there are two parallel passages, of which the outer has six recesses or niches in the exterior wall. These niches were probably intended to serve for the protracted defence, and the galleries for covered communications leading to towers or places of arms at the extremity of them. One of these places of arms still

exists at the south-west angle of the fortress; and there may have been others on either side of the great southern entrance.



“The passage which led directly from the southern entrance, between the upper enclosure and the eastern wall, unto the lower division of the fortress, was about twelve feet broad. But midway there still exists an immense door-post, with a hole in it for a bolt, showing that the passage might be closed up occasionally. In these various contrivances for the progressive defence of the interior we found a great resemblance not only to Mycenæ, which was built by the same school of engineers, but to several other Grecian fortresses of remote antiquity. A deficiency of flank defence is another point in which we find that Tyrins resembled this fortress. It is only on the western side towards the south that this essential mode of protection seems to have been provided. On this side, besides the place of arms at the south-west angle, there are the foundations of another, of semicircular form, projecting from the wall; and further on, a recess in the wall, which serves in aid of the semicircular bastion in covering the approach to the postern of the lower enclosure. There is some appearance of a wall of separation di-

viding the highest part of all from that next to the southern entrance, thus forming four interior divisions besides the passage."\*

This fortress was small; and the cause seems to have been, that it was, until the return of the Heraclidæ, dependent upon Mycenæ, and could not conveniently have been made larger, because, there being neither flanking towers nor salient angles, escalade could not be opposed but by manning the walls; and a larger extent might have required too numerous a garrison. The early engineers seem, however, to have well provided for the defence of the interior by an intricacy of enclosures†, and to have deemed defence of the approaches of the gates a substitute for towers. Thus the assailants must, as Homer circumstantially insinuates by his battles *under the walls* of Troy, have had very severe fighting before they could attack them, while the reserve of the garrison was secured within the fortress. Indeed, it is evident from Homer, that these citadels were, under the humble means of the age, very considerable obstacles to besiegers.

The next important Cyclopean relic is Mycenæ, which Pausanias says was built by the architects of Tyrins, and, notwithstanding its remote date, is far less changed than any place in Greece. It is, in architectural character, utterly dissimilar to other Hellenic remains; for in these we find nothing resembling the lions, or the columns before the gate of the great treasury. Every thing left at Mycenæ dates from the heroic ages. It was destroyed by the Argives in the year 468 B. C.‡

The plan of the Acropolis shows that it occupied the summit of a hill, and was divided into an inner and outer compartment. The most perfect of the remains are the gate of the lions, and the treasury of Atreus.

In these old fortresses, the approaches of the gates

\* Leake's *Morea*, ii. 352.

† *Id.* 386.

‡ *Id.* 369—386.

were substitutes for towers; and the defence of the interior consisted in numerous enclosures, and intricacy of communication.\* This gate of the lions† led into the lower Acropolis, which was separated from the upper by a wall parallel to the outer southern wall, and which appears to have had its communication with the upper Acropolis at the further extremity from the gate of the lions, evidently with the view of increasing the length and difficulty of the approach to the summit; and it is noticeable, that a round court, between two gates, as a means of cooping up assailants, who had carried the first, occurs at Messene, a city of a subsequent era. Dr. Clarke presumes that the recess was also used for a court of judicature, and market. The genuine character of Cyclopean masonry, properly so called, consists of huge masses of rock, the interstices being filled with small stones; the succeeding styles *not* being Cyclopean, although erroneously classed with it, and of later date.‡ The stones here appear to have been more cubed than those of Tyrins. The back part of this gate exhibits two styles of construction, differing totally from each other. That side which is towards the plain of Argos is of the rough Cyclopean; while the other side is regularly constructed, like the front of the gate, and the two lateral walls which diverge from it. It would appear that the gate had been made some time after the original Cyclopean structure: but, says Mr. Dodwell§, "I hazard this only as a probable conjecture, without presuming to decide whether the regular, as well as the irregular or polygonal construction were not sometimes employed at the same period:" but as the walls are mostly composed of the second style of well-joined polygons, although the rough construction is occasionally seen, and the outer enclosure, or walls of the city, were apparently less ancient than those of the fortresses, and supposed to be the works of

\* Leake, ii. 386.

† See vignette on title page.

‡ Stuart's *Athens*, new edit. vol. iv. p. 26. art. *Mycenæ*.

§ *Greece*, ii. 240. et seq.

the Argives themselves, not the Cyclopes\*, it may be affirmed that these changes were repairs only.

The figures of the lions are deemed by sir William Gell to resemble the Egyptian style, and to be a monument of the heroic ages. Sculpture is an art of more recent date than architecture, as ornament is of convenience. All the travellers give to the figures of the lions an Egyptian character, and observe, that they have not the tails of those animals,—a feature observable in Persepolitan representations; and sir William Gell and Mr. Dodwell admit that the Egyptian colonists might have executed them. It is certain that a portion of the natives, expelled by Joshua, did establish themselves in Egypt, as well as in Argolis; and that if the opinion before given, that these Cyclopes were Phœnicians, and the giants of the Septuagint, both styles may be ascribed, as by Pausanias, to the same people, namely, the Phœnicians. It is not that any hypothetical predilection is shown for that nation; it is only certain that, next to the Babylonians, that nation is recorded as the most eminent in arts and sciences, in the oldest book in the world, the Bible, and that the records of India and Egypt are apocryphal and fabulous. It is historically affirmed, that the Phœnicians or Canaanites were the first who instituted an order of architecture†: and Sammes‡ finds the Cyclopean style in Cornwall; for he says, “I will only mention one thing in this peninsula, which seems to me exactly to preserve its Phœnician name (*arith*, a lake), and that is a fortification of stones only, without any cement or mortar, lying as upon the lake *Leopole*,—a fortification after the manner of the Britons, as Tacitus describes them, *rudes et informes Saxorum compages*; which was the way of the eastern nations, as the Scriptures themselves inform us.” To resume: sculpture was also a marketable commodity among the Phœnicians; and the earliest specimens of metallurgy are the lions found

\* Gell's Argolis, 40—42.

† Bromley's Arts, i. 181.

‡ Britannia, 59.

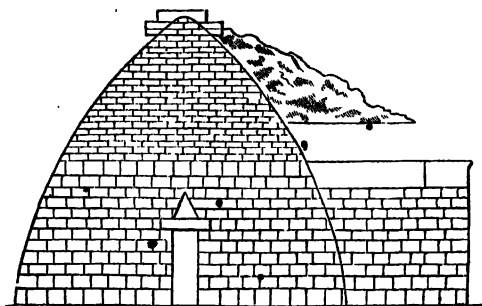
In the ruins of Babylon. As Mr. Dodwell\* observes, that these sculptures are probably the most ancient in Greece, and resemble those which are depicted in the most ancient ceramic vases found in Greece; and that one of the lions, which is before the arsenal at Venice, and which was brought from Athens; and another, which still remains near Cape Zoster, in Attica; and others, which are represented in the Perugian bronzes, are of the same form; it may be deemed importantly illustrative to give sir William Gell's minute description of them. "This gate† is mentioned by Pausanias, who says, some part of the circuit of the walls of Mycenæ remains, as well as a gate over which are lions. They are said to be the work of the Cyclopes, who built the walls of Tyrins for Prætus. This gate is situated at the end of a recess, about fifty feet deep, commanded by projections of the wall, which, in this part, is composed of rough blocks of squared stones; but they are often placed exactly above one another, so that the joints of three or four courses are precisely in one perpendicular line, which gives a strange and barbarous appearance to the whole. The architrave consists of a single stone, fifteen feet long, four feet four inches high; the triangular stone, on which the lions are sculptured, is eleven feet six inches long, nine feet eight inches high, and two feet in thickness. The sockets, about three inches in diameter, which served for the insertion of the pivots on which the gates turned, are visible in the lower surface of the architrave." Sir William is of opinion that the gates folded, and were secured by bars: but it is more probable, that, according to the very ancient fashion, they consisted of one piece, which turned upon central pivots; so that, upon entrance, one side of the door turned outwards, and the other within. He also thinks, that as the Cyclopes were worshippers of the sun, fire, and Vulcan; and as Cambyses introduced artists from Egypt to adorn his palace of Persepolis, that the lion,

\* Greece, ii. 239, 240.

† Corinthiaca, p. 59. Gell, 35.

being the symbol of Mithras, the ball of the sun, the spirals of water, and the triangle,—a mysterious Egyptian figure,—that the lions had an allegorical meaning, and might be the national symbols.\* Mr. Hughes†, however, believes that they merely designated a watch or guard: for such is the reason given by Valerian, for the appearance of lions over the identical gate in question; and Homer observes, that, for the same cause, images of dogs, in silver and gold, adorned the threshold of the palace of Antinous.

Colonel Leake‡ supposes that the entrance or recess was a place of arms, and not a mere wall; especially as it commanded the right, or unshielded, side of those who approached.



TREASURY OF ATREUS.

The treasury of Atreus is a building shaped, as in the cut, like a beehive, and was lined within with brass plates, of which the fastening nails remain. The vault is formed of horizontal courses, projecting beyond each other as they advance in height §, and the top surmounted by a large stone, which, it appears from Livy ||, was superimposed by an engine. It is remarkable that the construction of this building is exactly

\* Argolis, 35—40.

† Travels, i. 230.

‡ Morea, ii. 370.

§ Stuart's Athens, new ed. iv. 31.

|| B. 39. c. 5. Dodw. ii. 234.

similar to that of our ancient church spires, with this exception, that the stones, when laid horizontally in a circle, were not cut to fit, but had the gaping interstices filled with small stones; one of the criteria of pure Cyclopean masonry.\* Mr. Dodwell says, that the lintel of the door-way must have weighed about one hundred and thirty-three tons; with which no masses can be compared except those of Egypt and Balbec. Sir William Gell observes, that this is perhaps the only gateway where the antepagments do not consist of separate and appropriate stones, but are merely the common blocks of the wall, cut into three receding faces. It has been thought never, like the temples of Egypt, to have had a door, only a curtain: but this opinion is rejected; and the artists who have restored the ancient form have given to it an open-work iron gate, ornamented in the same manner as the other parts, and similar to the iron grating that appears to have parted off the pronaos and posticum from the peristyle in the antique temples.† Over the door is a triangular aperture, as in the gate of the lions: and according to the restored plate, the door-case was ornamented with columns and an architrave. Fragments of these still exist. The mouldings consist chiefly of scroll work; and the shafts of the columns are wrought all over in the same manner, disposed in zigzag within a border‡, but not intelligible by verbal description. Sir William Gell says that the leaves, which are the lowest ornament, are exactly similar to those represented by Norden in his view of the palace of Memnon. This treasury was a souterrain; and so were those of Sardanapalus.§ Similar fabrics existed at Orchomenos, and in different parts of Sicily. They are also considered to have been temples, tombs, and prisons; in the latter acceptation, from the interior lining of brass plates to illustrate the fable of Danaë.|| Souterrains with

\* Leake, ii. 378.

† Stuart's Athens, new edit. vol. iv. p. 32.

‡ Id. pl. iv.

§ Herodot. Clio, 154.

|| Fosbroke's Foreign Topography, p. 162. seq.

dome tops, also called *treasuries*, occur at Mycenæ: but as Homer says that the Cyclopes

Ἰγλῶν ὄρεων ναιεσι κερνα  
 Ἐν σπεσσι γλαφυροισι,

Od. ix.

i. e. *inhabit the tops of high mountains, in hollow caverns, —*

and that the word γλαφυρος is derived from γλαφω, which signifies to engrave or to carve, as well as to excavate; it may be doubted whether these supposed treasuries were not Cyclopean dwellings.

Of this architecture, colonel Leake gives the following account.\* — “The ruins of Mycenæ being anterior to the time of Homer, contain specimens of an architecture very different from the Doric. The artists of those times were chiefly engaged in the construction of treasuries, not of temples, which afterwards served for the same purpose as the former. Another fact, deducible from the ruins of Mycenæ, as well as from the description left by Pausanias, and other authors, of the Greek buildings of those times, is that the early colonies of Egypt, although they introduced some of the mythology of that country, did not transplant its arts in any great degree: for there is nothing at Mycenæ bearing any resemblance to the monuments of Egypt; nor, indeed, have the temples of Greece any similarity to those of Egypt, beyond the existence of columns, which are so natural an invention, that they are found in the huts or caves of similar climates in every part of the world, and in the course of improvement have become the principal ornaments of sacred buildings in the most distant countries.”

It has been before observed, that the proper criterion of Cyclopean masonry, — in truth, the *only* style appertaining to those builders, — is that which consists of huge masses of rock, the interstices being filled with small stones. These small stones, too, as in almost all the very early fortifications of Greece, formed the found-

\* Morea, iii. 271.

ation ; so that there appears to have been no fear of mining. At Tyfins, sir William Gell noticed the remains of a solid tower, commanding the road, which passed under it ; and in one part of the wall of the citadel at Mycenæ, something like a tower is visible, which being perpendicular, while the curtain inclines a little inward from its base, there remains a projection at the top sufficient to enable an archer to defend the wall below.\* The Tyrrhenian style is deemed older than that of Mycenæ ; because in the latter the stones are more squared and adapted to each other. Stone squarers are mentioned in holy writ as a branch of the masonic profession †, and there also will be found most of the tools now used ; the compass, plane, line, saw for stones, rule, hammers, and possibly others. There were also machines, as cranes, and wheels and axles ; but such enormous masses as those used in the Cyclopean buildings could not have been raised by any other apparent means than rollers and artificial causeways, the stone being drawn upwards by means of capstans and levers. Herodotus adds wedges ; and ancient authorities mention all these methods. ‡

Before proceeding to the next style in Greece, the architecture in Egypt and India (a similar style), and Persia, must be noticed. That there is an evident assimilation between the styles of India and Egypt is attested by a very curious circumstance. The Sepoys in the army of sir David Baird, who was sent to assist lord Hutchinson in the reduction of Egypt, were so struck with the resemblance of the ancient temples, that they went there to perform their religious rites. How ancient the style of either may be, it is impossible to say. It has, indeed, been recently affirmed, that there exist monuments which take date so early as 2000 years before the commencement of our era ; and these showing that the arts were not in their infancy, but recovering after a disastrous epoch.§ Now, Abra-

\* Gell's Argolis.

† Encyc. of Antiq. 16, 17.

‡ 1 Kings, v. 18.

§ For. Rev. No. x. p. 541.

ham's arrival in Egypt is the first time that country is mentioned in authentic history; for it is known that the fifteen dynasties before that patriarch, which Josephus, Africanus, and Eusebius borrowed from Manetho, are commentitious. If the years be counted, the beginning of them ascends to 1735 years before the birth of Adam.\* According to Herodotus, Egypt was originally governed by eight *gods*, to whom succeeded twelve other *gods*, who commenced their reigns 17,571 years before the Christian era! Such an absurdity can only be reconciled by one circumstance, viz. that according to Diodorus, Plutarch, and Pliny †, the ancient Egyptian *year* consisted of only one *month*, and that accordingly they have mentioned kings who lived 1000 *years*. If the former number be divided by *twelve*, as the number of months in a solar year, the era will be only 1464 years B. C.; and, by the same means, the longevity as to persons, of 1000 years, is reduced to eighty-three. This calculation, which is suggested by Pliny, brings the era four centuries more recent than the arrival of Abraham (anno 1916 B. C.); in whose era it has been presumed that there were no mighty empires upon earth, as no family had had time to increase in a degree equal to the population of any one large city in England. Lastly, sir William Drummond ‡ shows, (1.) That all the fables alluded to were falsifications of the Egyptian priests, no two of whom told the same story of their national history. (2.) That names, though really taken from ancient monuments, do not settle chronological questions, or can with certainty be appropriated to kings. (3.) That Petavius gave up as hopeless the impracticable task of settling the Egyptian chronology. (4.) That the era of Sesostris cannot be ascertained; and, (5.) That there is nothing approaching to certainty before the time of Psammetichus the First, in the seventh century B. C., and 200 years later than

\* Justin, l. i. c. l. n. 5. Delphin edit.

† Plin vii. 48. Diod. l. i. Plut. in Numa.

‡ Origines, b. iv. c. 12.

Cheops, to whom Herodotus ascribes the erection of the first pyramid.

Under these difficulties, it is fit to adhere only to matters which seem to be unquestionable. One is, that what has been denominated the ancient history of Egypt cannot be authoritative; the other, that towns could not have been founded, in all such parts of Egypt as were subject to the rise of the Nile, before there had been superstructions or *podia* made above the level of the inundation. Accordingly, we find that all the ancient towns to which the inundation extended were built upon artificial elevations\*; and such an elevation, whether natural, or a work of art, is conspicuous near Cairo in the present day; the old town having been erected upon or near the ruins of the Egyptian Babylon, by Amrou the Saracen, when he had destroyed Memphis, a town founded, as affirmed, by Cambyzes.† Alberti writes thus: — “The Ethiopians; according to Herodotus, when they seized Egypt, killed none of the conquered; but employed them in raising heaps of earth at the towns which they used to inhabit. Hence they say that cities were founded in Egypt.‡ These artificial substructions were composed, some authors say, of burnt bricks, or, according to sir William Drummond, of rubble, surrounded with enclosures, built of bricks, about one foot long by eight inches thick, and as many deep; precisely of the same materials as those now made in Egypt, but very different from ours.§ Pliny gives us the statement of some old writers, who say, that in the construction of the pyramids causeways were raised of bricks, made of mud, which, upon completion of the work, were distributed among the private houses.|| A pyramid at Saccarah is built of brick and chopped straw. All these premises are substantially confirmed by the labours of the Israelites in the time of Moses, about 1600 years before the commencement of our era.

\* Denon, ii. clvii. ed. Londres.

† De Re edific. fol. i. a.

‡ Denon, ii. cxlvii.

† Id. Append. xcvi.

§ Id. xxxvi. 12.

It is to be repeated, that nothing authentic can be said concerning Egypt in remote periods, except that which the Scripture affords. Zoan is stated to have been built seven years after Hebron; and as Sarah died at Hebron, it must have been founded at least 2000 years before our era. The site of Zoan has been placed by an old author at *Memphis*; by Dr. Clarke at *S'el Hajar*, or Sais or Sin; but, as the Hebrew *Tsoan* is the Coptic *Djane*, there is little doubt but that it was the subsequent *Tanis*, of which considerable ruins are still seen \*near the Pelusiatic mouth of the Nile, and on the borders of the lake of Menzaleh.\* It was a vast city, built upon an artificial elevation, and upon the ruins was founded a Roman town, called Tinnys. It was certainly coexistent with the Pharaohs; and intermixed with remains of monuments of more recent era, are excavated those which are also found at Babylon, namely, immense masses of bricks, porcelain, pottery, and glass of all colours.† Denon's plate of the ruins shows obelisks, blocks, trunks of statues, and other works in granite, which appear to have been brought there from Upper Egypt.

These first and ancient cities were deserted by their inhabitants, many of them in the time of Cambyzes. The mounds and enclosures fell into ruin, and the consequent irruption of the Nile has obscured the traces of them.‡

It is not probable that there originally existed, in these ancient primary cities, any traces of columns, epistyles, or other indicia of scientific architecture, because none are to be found at Babylon. The very curious courses in which the bricks are laid in the *El Roumylei* of Gairo§ are likely to assimilate the construction of the walls; and the city of Bacchus, engraved by Belzoni, the general character of the place. Sais, near Salhaggar (the *S'el Hajar* of Dr. Clarke), an undoubted palace of

\* Sir Will. Drummond, 32. 303.

† Denon, Appendix, ii. clvii.

‡ Sir Will. Drummond, ii. 21.

§ See the Grande Description, E. M. vol. ii. pl. 67.

the old Egyptian kings, mentioned by Herodotus, is also of very great extent, but has only, says one traveller\*, “a few mutilated statues and fragments of granite, and a circuit of enormous mounds, to distinguish the site of this once proud metropolis;” and Dr. Clarke adds, “foundations of a vast edifice, forming a quadrangular enclosure, *the area of which was a high mound of earth*, supporting the ruins of some building; the whole corresponding very accurately with the account† of Sais given by Herodotus.”

This “father of history” visited Egypt only fifty-five years after the death of Cambyzes; and in statements which do not imply fabrication of the priests, much attention is due to him. The *first* of the Egyptian kings, Menes, is said by him to have founded Memphis, and erected there the celebrated temple of Vulcan, more than 2000 years before our era.‡ But Menes is a fictitious personage; the term implying only the sun or Osiris.§ Hermopolis, unquestionably very ancient, and anterior to Thebes, is stated to have been built by Ishmun, son of Misraim, son of Ham, son of Noah; but although there is no reason to dispute the first occupation of Egypt by Misraim||, Eshmon or Ishman only means the fire of the sun, and was a Phœnician deity.¶ Elephantina is undoubtedly very ancient, and furnished the wrong conclusion of Denon, that the smallest temples in Egypt are, as such, those which have the most remote claims.\*\* But whatever was the period of the reign of Sesostris, who may have been existent fifteen centuries before the Christian era, there is no reason to contest his actions, nor to disbelieve that many of the Egyptian remains may be traced to him; for he was the only Egyptian monarch who reigned over Ethiopia††, and the monuments of Egypt are the more ancient, the nearer they are to the tropic; nor were there any entirely built in granite, until the seat of the monarchy

\* Fuller, 141.

† Foreign Topography, p. 247.

‡ Herod. b. ii. § 5.

§ Drumm. Orig. ii. 360. 366.

|| Id. 410.

¶ Id. 402.

\*\* Denon, Append. ii. xvi.

†† Herodot.

was transferred to Memphis. Then Upper Egypt was plundered to enrich the Lower ; and Herodotus informs us, that Sesostris employed the prisoners, which he took in the conquered countries, in drawing those enormous stones, which in his reign were collected at the temple of \*Vulcan\* (at Memphis). Diodorus adds, that he, Sesostris, caused a temple to be built in every city in honour of the deity, who was the object of its peculiar veneration. The captives taken in war were alone employed in constructing these edifices ; and it was the proud boast of the monarch, that no native Egyptian was engaged in this hard and laborious service. To this period we may, therefore, safely ascend ; but according to the chronology of Egypt, as rectified by sir Isaac Newton, Sesostris was a contemporary of Solomon, the Shishak of Scripture, and the oriental Bacchus. Sir William Drummond urges that this identification is untenable ; and other authors deny the very existence of Sesostris, or dispute his actions : nevertheless, it is most certain that the style of the Indian cavern temple of Elephanta, and that of Hermopolis, is the same ; and that the employment of the captives taken in war, if they were Indians and Ethiopians, in constructing the Egyptian temples, does explain the similar character alluded to. It must, however, be confessed, that the Phœnician or Canaanitish invasion was four centuries earlier than the alleged era of Shishak ; and that Herodotus and Strabo say that the Egyptians and Phœnicians were the first who erected temples ; but as the vicinity of the Red Sea is the spot where the more ancient temples are found, and we know of none of Cyclopean or Phœnician origin, precedence may readily be granted to the originals of the Egyptian fabrics having been the cavern temples of India.

The character of Egyptian architecture is, massy grandeur, adapted to giants rather than men ; but the cause is obvious. It was an imitation of the souterrains of India, where the superincumbent earth re-

\* Denon, ii. Append. v.

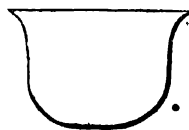
quired heavy piers ; and the want of timber for roofing, in Egypt, recommended a similar style. The Egyptians, says Strabo, worshipped every divinity but the Graces, and the ornaments of architecture are heavy in the execution, and offer no repose to the eye. The subjects are **TEMPLES, PALACES, TOMBS, PYRAMIDS, OBELISKS, and COLOSSAL FIGURES.**

All the forms of Egyptian temples, their massive columns, flat roofs, and gigantic idols, are to be found in the Indian Elephanta ; and the details of their architecture appear in the older temples, while those of a Grecian character are found in the more modern erections. This appears by a very simple test,—the capitals of



the columns. The Indian form is the urceolated, and is found at Hermopolis, Elephantina, Gournon, Luxor, the Memnonium, and quarries of Silsilis, which are known to be most ancient, and have no Grecism of character.

The Grecian character is the Ogee capital, thus : — and it occurs at Tentyra, Hermontis, Apollinopolis, and many others, which have modern characteristics ; for it is to be remembered, that several of the temples are of the age of the Ptolemies, possibly of the Antonines\* ; and that the stupendous antiquity with which



they have been invested, is as unfounded as the chronology from which such an appropriation has been assumed.

The following tests are given of the respective antiquity of these temples :—

Ipsambul is the most ancient of all ; for, if the inscription be admitted, it was of the age of Psammetichus the first, *i. e.* according to the Newtonian chronology, 655 B. C. It is an excavation in the solid rock, and has no columns, only piers, faced with colossal

\* Messrs. Banks, Fuller, &c.

figures. The interior view will give the most intelligible idea of it.



There was a general character, but no fixed plan, in Egyptian temples. The general rule laid down by Denon is, that the smaller they are, the more ancient. But this is not a certain test: for Mr. Fuller says, that on the banks of the Nile, between the first and second cataracts, he visited, in the course of three easy days' sail, twelve different temples; all of them, with the exception of the excavations at Girshi-Hassan and Ipsambul, on a smaller scale than those of Egypt, and the greater part of a comparatively modern date. This circumstance is, he adds, indicated by certain peculiarities in the architecture, and also by the bas-reliefs and other monuments, which are evidently of a period when the native Egyptian manner had been mixed up with imitations of Greek or Roman sculpture, *introduced, probably, by artists from those countries.*\*

Nothing is more easy to detect than the intermixture of the Greek manner, as corrective of the cold and harsh Egyptian style. It is a portrait flattered,—an attempt to mould heaviness into elegance; to modify long visages, high cheek bones, beeding eyebrows, cat's eyes, and low foreheads, by the *beau idéal* standard. Architecture by time grows lighter, and sculpture more delicate. These are rules which are always

\* Fuller's Travels through some Parts of Turkey, pp. 221, 222.

correct : and certain it is, that at Phylæ and Kalabshee, and in other modern examples, the heavy Egyptian becomes light, and retains only the pattern, not the character.

Further tests are these :—Connection of the porticoes of columns by dwarf walls or panels, each surmounted by a cornice and winged globe, as at Kalapshé, is said to prove a modern date, being never found in the more ancient edifices.\*

Columns of lighter proportions, and capitals with ornaments much resembling the Ionic volute, show the latest manner of the Egyptian school, when it was gradually melting into the Roman.†

Inscriptions commemorating, as supposed, only repairs by Greeks or Romans, are now, if combined with Greek styles of architecture and sculpture, thought to indicate the first foundation of them in the time of the Ptolemics, or even of a later era.‡

The hieroglyphic writing is no proof of ancientry, for it was known and practised as late as the reigns of the Antonines.§ •

Bas-reliefs representing battles, sieges, and military incidents, imply remote eras, when Egypt was a warlike and conquering nation ; but if they refer only to priests, sacrifices, and religious pageants, the time when it was reduced to a province.||

The absence of the large overhanging cornice may be another denotation of antiquity, for it does not occur at Hermopolis¶, Elephantina\*\*, Gournon††, the Memnonium‡‡, and Luxor.§§

It may also be doubted, whether the truncated pyramidal towers are of the most remote ancientry.

Strabo's account of an Egyptian temple is this :—An outer court or avenue, with rows of sphinxes on each side ; then one or more porticoes ; next, the temple, a large court ; then the sanctuary, smaller. The plans of

\* Fuller, 219.

¶ Denon, pl. xi.

‡‡ Id. pl. xx.

† Id. 225.

\*\* Id. pl. xxxvii.

§§ Id. pl. xxi.

‡ Id. 177.

§ Id. || Id. 183.

†† Id. pl. xvi.

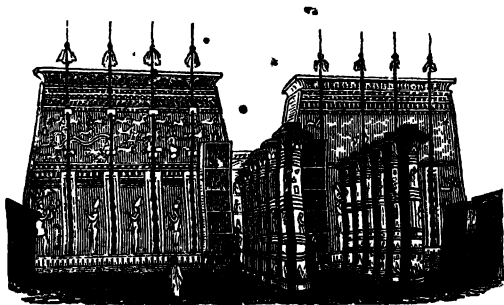
all of them are not, however, similar, except in being courts or areas, lined with colonnades and apartments, —the communicating passages or avenues being rich porticoes, with magnificent columns, or with lofty pyramidal towers. Some, as at Debodè (Parembolè), have *four* pylades or gateways, one behind the other: at Philæ, the different buildings are not in a straight line, but are placed obliquely to each other; and at the same place is an unfinished temple, which bears little resemblance to the other sacred edifices of the Egyptians. It consists only of an oblong enclosure, with five columns at each of the sides, and two at each end, between which latter are the entrances.\*

Mr. Fuller gives the following general character of Egyptian architecture: — Compared with the Grecian style, the temples on the Nile appear at first sight to be heavy, almost to deformity; the intercolumniations too small, the pillars crowded, the ordinary form of them extremely clumsy, and the ornaments monotonous in design and redundant in quantity. But, after repeated observations, these unfavourable impressions wear off, and we become gradually sensible of the grand effect produced by the vast size of the buildings, the massiveness of the masonry, the strength of the columns, the variety of the capitals, the graceful inclinations of the outer walls, the simplicity of the mouldings, and the bold curve of the cornice. The ornaments, however crowded, are always subservient to the principal design; and at that point of distance where the architecture is seen to the greatest advantage, the sculpture, for the most part, is no longer distinguishable. It is, however, to be lamented, that of all the graphic works published on Egypt, not one can be found which does complete justice to the ancient monuments, or conveys an accurate notion of their effect to the minds of those who have never seen them; and even in the “Grand Livre” of the French Institute, the drawings often bear but little resemblance to the

\* Fuller.

subjects.\* That the majesty of the Egyptian temple must have been supreme, may be conceived from colonel Light's account of the temple at Carnac; which, he says, was a mile and a half in circumference; the smallest blocks five feet by four; and the obelisks, of one single piece of granite, eighty feet high, on a base of eighteen.

*Palaces.* — That at Médinel Aboul was, in plan, an oblong square, divided into three compartments: first, a court; second, another court or peristyle; with a piazza all round, like an exchange. Denon says, that the most important remain is a peristyle of four ranks of columns, placed on four sides of the court. These four rows were necessary to protect persons from the rays of an almost vertical sun. The windows are long oblong square, rectangular square, double, and of the modern sash form. The surrounding wall of the palace is embattled, and adjacent is a hippodrome or stadium. There were apartments, upper stories, small doors, a staircase, and very solid balconies, supported by a kind of cariatides; but the interior of the state part resembled that of a cathedral. The mass of lofty dead wall was relieved by bas-reliefs and colossal figures.



*Tombs.*—It was an opinion of the ancient Egyptians, that after a lapse of many thousand years their souls would come to re-inhabit their bodies, if the latter were preserved entire. Hence proceeded the mummies, and the situation of the sepulchres, in places not subject to inundation. The tombs at Thebes consist of chambers and passages excavated in the side of a mountain, and covered with sculptures and paintings of such resplendent tints, that they almost defied imitation in this country. Good taste in the combination of colours seems to be natural to the inhabitants of the East, even at the present day; and artists who have examined critically the paintings in the tombs of the kings, and elsewhere, which remain in perfect preservation, have been surprised at the knowledge of effect which the ancient colourists possessed. It is not produced, they say, by the purity or brightness of any particular tint; but, as in the works of the Venetian school, by that perfect arrangement which will not allow any part, however unimportant it may appear, to be altered without injuring the effect of the whole composition. They knew no other colours than red, blue dark and light, yellow, green, or black. With the red and green they produced a very splendid effect, particularly by candle-light. They had no knowledge of elevating their figures by shading, or very little or none of perspective; all that was done being in profile: varnish was either incorporated with the colours, or laid over them. In drawing and sculpture, the first process was to make the walls as smooth as possible, and fill up flaws with cement. An inferior artist drew the first lines in red; another connected them in black. The figures then received a coat of whitewash; and the white, says Belzoni, was of so beautiful a colour, that the best and whitest paper, when compared with it, has a yellow tinge. They commonly represented the human flesh red; but when they had occasion to depict a fair lady, often yellow. The garments being generally white, the other colours were mostly applied to the or-

naments. The most interesting part of these paintings consists in the subjects. These are taken from all the arts of civilisation which obtained in Egypt; and represent the modes of manufacture, agriculture, navigation, pottery work, machinery and processes of trade, rural employments, hunting, fishing, marches of troops, punishments in use, musical instruments, dresses, and furniture. It was from one of these chambers that Belzoni extracted the famous alabaster sarcophagus, which was purchased by Sir John Soane, the architect.

Belzoni's account of mummies is very minute and valuable. It may correct his confused style, to classify that account.

*Position of the mummies.*—None standing; all laid together in horizontal rows.

*Mummies of the lower classes.*—No cases, only dried by exposure to the sun—no gum, nor any thing else, found in them; the linen in which they are folded, coarser and less in quantity; no ornament about them of any consequence; piled up in layers, so as to crowd several caves rudely excavated. Few or no papyri found; if any, only small pieces, stuck upon the breast with a little gum or asphaltum.

*Cases of mummies of the superior orders.*—Some sunk into a cement, which must have been nearly fluid when the cases were placed on it. No papyri found in cased mummies, but often in those without cases. It appeared to Belzoni, that such people as could afford cases, would have one to be buried in, upon which the history of their lives was painted. Those who could not afford a case, were contented to have their lives written on papyri, rolled up and placed above their knees.—Great difference in the appearance of the cases: some excessively plain; others more ornamented; and some very richly adorned with figures well painted: the cases generally of Egyptian sycamore, apparently the most plentiful wood in the country, because usually employed for the different utensils; all the cases with a

human face, male or female ; some larger cases with others within them, either of wood or plaster painted : inner cases sometimes fitted to the body, others only covers in form of a man : wooden case first covered with a layer or two of cement, not unlike plaster of Paris, in which are sometimes cast figures in bas-relief, under niches cut in stone ; the whole case painted—ground generally yellow ; the figures and hieroglyphics blue, green, red, and black,—latter seldom used ; the whole of the painting covered with a varnish, which preserves it very effectually. Cases of the supposed mummies of priests of better execution ; one seen by Belzoni had the eyes and eyebrows in enamel, beautifully executed in imitation of nature : of eight untouched mummies, the cases lay flat on the ground, facing the east, in two equal rows, imbedded in mortar ; the cases all painted ; one with a large covering thrown over it, like the coffin pall of the present day.

*Mummies themselves.*—None of animals found in tombs of the higher sort ; no papyrus found in mummies with cases ; women distinguishable from men, by the beard and breast, like that on the outside ; garlands of flowers, and leaves of the acacia or sunt tree, over the heads and breasts of mummies ; in the inside of mummies, lumps of asphaltum, sometimes of two pounds' weight ; entrails often found, bound up in linen and asphaltum.

*Supposed mummies of priests,*—folded in a manner totally different from the others, and more carefully executed ; the bandages or straps of red and white linen intermixed, covering the whole body ; arms and legs not included in the envelope of the body, as in the common mode, but bandaged separately, even the fingers and toes ; sandals of painted leather on the feet ; bracelets on the arms and wrists ; the arms across the breasts, but not pressing them, always found in these mummies ; the shape of the person, notwithstanding the quantity of bandage, carefully preserved in every limb ; new linen apparently put over the old rags in some mummies,

—which circumstance proves that care was taken of the dead long after their decease.

The PYRAMIDS are known to have been mausolea, connected with temples, and parts of Memphis. The most received date of their erection is that of Herodotus, the ninth century before Christ. The sepulchral purpose is evidently ascertained by the discovery of the sarcophagus and the interior chambers. The real entrance was at the base. That they were, in the primitive design, temples as well as mausolea, is well supported, from the tower of Belus, the similar form of a temple of the Moon at Mexico, and the Indian pagodas. The ancients had certainly machines by which they elevated immense stones; for they are mentioned by Livy; and Herodotus says, that when one grade of the pyramids was completed, the stones required for the next were elevated by means of small pieces of wood, which some of his translators presume to have been wedges. Elevators and levers apply best to his description; but the precise method is not known. It is, however, certain that the ancients did raise enormous masses, apparently with a facility unknown to the moderns. This is proved by the ingenious experiments of Archimedes.\*

OBELISKS.—Pliny† says, that Mitres, who reigned in Heliopolis, being warned by a dream, first erected these singular members of architecture, and no other origin is known. If he was the same as Mephres, he reigned in the year 1125 B.C., and at a time when the Phœnician or Cyclopean masons had not been wholly expelled. This obelisk, presumed to be the oldest in Egypt, still remains, and has been repeatedly engraved; but, by Cassas, with a crowd of accessories not to be found upon the spot.‡ It does not appear, however, that the design originated with Mephres; for Diodorus informs

\* Alberti, de Re edificat. l. vi. c. 6., details the various modes; but as there are no figures, there cannot be assurance against mistake.

† xxxvi. 8.

‡ By Cassas, Voyage de Syrie et d'Égypte, whence it has been copied for the frontispiece of vol. ii. to the French London edition of Denon. It is also engraved in Clarke's Travels, v. 143.

us, that a stone was erected by Semiramis, of which the breadth was a fifth part of the whole height, and it was called, however erroneously, an *obelisk*,—a term of uncertain definition. George Zoëge, a Dane, has published an elaborate folio volume upon this particular subject. From this work we learn the Egyptian method of making them. They marked out in a hill, a stratum for the purpose; levelled the surface and side with digging tools; then, with a chisel, cut some furrows or channels to define the opposite sides. These being excavated to a certain depth, they tore the obelisk from the rock by the aid of wedges. Pococke, from vestiges existing in quarries, proves that this was the method; and, in a similar way, are still cut, in France, pieces of granite forty-five feet long and eighteen broad. The obelisks thus cut were placed upon sledges, and drawn to the river; and thence conveyed by water-carriage to any town in Egypt. A vessel or raft purposely constructed, was firmly tied to the shore; and a bridge being made of strong beams from the edge of the shore, or steps cut in the bank, and projecting as far as the vessel or raft, any weight, by means of rollers, could be transferred to it. The Egyptians being contented with low plinths, instead of stylobates, the obelisks were thus erected. They were dragged along a causeway made of earth or stones, until the base impended over a hole made in the plinth. A tower of beams was constructed, ropes tied round the top, and engines so disposed that it could be elevated. When it was raised to the perpendicular, it subsided into the cavity of the plinth by its own weight.\* The obelisk at Constantinople was raised by windlasses and pulleys simultaneously worked.† In carving the figures, the Egyptians seem to have used the same tools as the moderns.‡ It has been said, that the Egyptian obelisks never had a pedestal; but Belzoni mentions, perhaps, a solitary§ exception; and two obelisks with pedestals occur at Elora in India.|| At Fayoum was

\* Zoëge de Obeliscis, 185. 187. &c.

† Zoëge, 189. § P. 356.

‡ Wheeler, Dallaway, &c.  
| Fosbrooke's For. Topogr. 90.

one, of two broad sides, not four equal ones.\* There were none among the Egyptians trilateral.†

In the beginning they were simple memorials, without inscription or ornament—when the latter were added, the subjects were historical, scientific, or religious. They are not to be confounded with *stelæ*, appertaining to tombs, for they had no relation to funeral monuments, but were placed in courts of temples, caves, or adyta, upon tumuli, or on any other place which famous events had rendered memorable. Two of them frequently decorated the entrances of grand buildings, and had a superb effect. Pliny seems to hint that they were used as gnomons for sun-dials. The moderns have spoiled them, by placing them upon an elevated base; thus dividing into two pieces, that which owes its effect and grandeur to being a whole. They are equally spoiled by placing a globe, or any other object upon the summit.

*Colossal Figures.*—We are told that there is no account of any earlier than those which Sesostris placed in the temple of Vulcan, at Memphis, of himself and his wife, thirty cubits high, and of his children, twenty. Amasis, however, who reigned sixty years before Sesostris, is said, by Herodotus, to have placed before the same temple three colossi, one seventy-five feet long. He also mentions some of wood, at Sais, said by tradition to represent the maids of the daughter of Mycerinus, who reigned in the year 808 B. C., and he speaks of others of wood also, intended to represent priests. The porch of the temple of Vulcan, at Memphis, built by Psammitichus 655 B. C. was supported by colossal figures instead of columns.

SPHINXES have been before mentioned as occurring at Babylon. They are also found in the Indian temple of Elora; and Strabo says, that rows of them were placed in the outer courts of Egyptian temples. Some at Persepolis are rampant. Various origins are ascribed for this monstrous figure. Diodorus says, that similar

\* Grande Description, iv. pl. 71.

† Zoëge, 133.

animals exist in Ethiopia ; others, that it is an emblem of the inundation of the Nile, which commences under the dominancy of the signs Leo and Virgo. Plutarch adds, that sphinxes were placed before Egyptian temples to denote that the national religion was enigmatical.

Concerning the towns and houses of the Egyptians, we have a good specimen in the remains of Berenice, on the Red Sea, a city built upon one of those moles which distinguish the site of ancient Egyptian towns. The situation of the houses is regular, the main streets coinciding, and in the centre was a temple. It was the custom of the people to live close together, and the largest houses were but forty feet in length, and twenty in breadth ; others were smaller, for, adds Belzoni, " these people had no need of great sheds to store coaches, chariots, or any other luxurious lumber. Their cattle and camels lay always in the open air, as they still do in all these countries ; nor had they any extensive manufactories. The only buildings for their commerce would be but a few store-houses ; nor could the narrow lanes, which were in use in those times, occupy much of the ground." Diodorus says, that the houses of Thebes were four or five stories high ; and Belzoni shows, from the city of Bacchus on the lake Mœris, that the houses of Diodorus resembled church towers without buttresses. The houses, he says, are not united, nor built in any regularity for streets, but only divided by alleys, not more than three or four feet wide, and all built of sun-burnt bricks. There is a causeway or road, made of large stones. It runs through the town to the temple, which faces the south. In the centre of the city Belzoni observed several houses, or rather cellars, under ground, as they appeared from their tops, which were covered with strong pieces of wood, over which there were some cane, and then above this a layer of bricks on a level with the surface, so that one might walk over them without perceiving that he was treading upon the top of a house. Upon uncovering some of these houses, after removing the layer of

bricks, was found a layer of clay, and then a layer of canes, which were nearly burnt; and, lastly, under the canes some rafters of wood, forming the ceiling. The wood was in good preservation, and of a hard quality. The inside of a hut, or cellar, was filled up with rubbish; but they had evidently been inhabited, as there was a fire-place in every one of them. They were not more than ten or twelve feet square, and the communication to each other was by a narrow lane, which was not more than three feet wide, also covered. Belzoni cannot conceive the reason why these people lived in such places. He is certain that they did not live there to be out of the heat; on the contrary, they must have had all the heat of the sun shining upon them, without the slightest chance of a breath of wind. The houses above ground were constructed in a manner somewhat different from any which he had before seen. There were few which had a second floor, and those which were higher than the rest were very narrow, so that they were *more like the form of towers* than common houses; but now they are scarcely to be seen entire. Diodorus says, that the houses of Thebes were four or five stories high; and Dionysius of Halicarnassus confirms this, by saying that the houses of the first ages resembled towers,—an affirmation which had been qualified by limitation to maritime situations and lone houses. The Greek *pyrgos* seem to have been derived from this fashion; but they were not universal. In the *Grande Description* \* are plans of private habitations at Karnak, an adjunct of Thebes. These appear to have been squares, with chambers on the side; in the centre of one of them columns, a round well, and an oblong cistern. Denon says, that the Egyptian houses having occupied the level of the plain, and been built with unbaked bricks, have thus disappeared; but this circumstance must have been guarded against, as in the present day, by placing the villages upon elevations above the surface of the inundation. Other authorities say, that

\* Vol. iii. pl. 16.

even the palaces of kings were constructed of reeds ; and such fabrics for cottages and dove-cotes do appear in the famous tessellated pavement of Palestrina or Prænestè.\* These reed edifices are said to have had no exterior windows, nor do any appear in them, apparently because they have large doors at the gable end ; and these ample apertures are also found in the city of Bacchus. Houses of the better sort, as represented upon the Roman pavement, consist of one or more towers, connected by a wall, like a part of a castle ; and these houses have windows in the modern oriental fashion. The present buildings upon the terrace of the temple at Edfu are of similar construction to these towered edifices upon the Roman monument. The ancient dove-cotes have a conical roof, made entirely of reeds, and perforated with holes, for the ingress of the birds ; and at the present day the Egyptian houses seldom have windows on the ground floors, and the upper story is almost always devoted to pigeons, which are kept by thousands. The only modern difference of import is the lowness of the doors. Proceeding in chronological order, we now arrive at the celebrated remains of Persepolis.

The authors of the history of Iran, or Persia, lay claims to antiquity, which rival those of the Hindus themselves. In the division of this country, now called Pharsistan, and presumed to be that which the Greeks denominated *Persis*, are found the genuine race of Iranians ; and here was built the magnificent city of Istachar, also changed to Persepolis by the Greeks. Sir William Drummond supposes that this ancient capital was originally a pyræum, or fire-temple.† Persia was, however, before the time of Cyrus, a province of the Babylonian or Assyrian empire, and inhabited by a very rude and barbarous people, who lived only on the rough produce of the soil, wore garments of skins, and drank not wine, only water.‡ It would be absurd to ascribe

\* Engraved in Montfaucon, Suppl. v. 4. h. 7. c. 5. seq. † B. lii. c. 1.

‡ Herod. Clio. 71.

to such barbarians the foundation of a palace so magnificent, and so illustrative of skill in the arts, as Persepolis. There is, from this state of things, every probability that Ælian \* was correct in saying, that the elder Cyrus was proud, according to an ancient tradition, of *the palace* which he had built at Persepolis, though Justin † shows that *the town* had a previous existence. The Persian historians ‡ give a different account.\* They say, that the palace was the work of Kayon Marasc, first king of the Peshdadian dynasty, who gave to it the name of his son Issthakar, or Djemchydd, a Persian king, whose era they do not fix; but sir William Drummond does; for he says, that he began to reign 1925 years before Christ, and about two years before the departure of Abraham from Uz. So far from admitting Istachar to be a name of Gemshieb, he conceives its etymon to be *Istachur* or *Estachur*, *ignis solis*, and its meaning, a pyreum.§ Nor are these accounts all. Diodorus || says, that after Cambyzes, son of Cyrus, had plundered Egypt of its gold, silver, and sculptures in stone and ivory, he transported them into Asia, together with Egyptian workmen, and by this means founded the celebrated palaces in Persepolis, Susa, and Media. Cyrus and Cambyzes lived in the seventh century before Christ. Now, under the circumstances stated, the ancient barbarism of the first Persians, and the traditions recorded by the Greek authors, traditions which, as being those of remote eras, are best entitled to attention, there is no external evidence for ascribing the existent remains of Persepolis to an earlier era than that of Cyrus, the acknowledged founder, and Cambyzes, the alleged but not undisputed improver. They who advocate the claims of the latter assign the following reasons. Persepolis, they say, has the same latitude as Memphis (30 degrees). It was moreover situated, like that, near a river, and mountains of granite sup-

\* Hist. Anim. l. i. c. 59.  
 † Origines, l. 310.

† L. i. c. 6.  
 || L. i. 30.

‡ Mem. Instit. iii. 214.

ported the palace of its masters, which commanded the town.

At some miles distance, monticules, cut into platforms, enclosed the avenues of the plain, and formed by nature lodgments for fortresses and small armies of observation. Imitation of Memphis might therefore have influenced Cambyses, and the conveyance of Egyptian materials was not difficult; for it was only necessary to embark them on the Red Sea, to coast Arabia, enter the Persian Gulf, and go from thence to Persepolis by the Araxes.\* On the other hand, Mongez, who has written an elaborate dissertation concerning these ruins †, contends, that the palace was founded by the elder Cyrus, and that the work was executed, not by Egyptian colonists, but the ancient Persians themselves, who borrowed the fashion from India. In support of this he quotes sir William Jones, who says, "that the ornaments of the palace of Badyk Kan, at Chyrax, are of the same style as those of Persepolis, and that the modern architecture of the Persians much resembles that of their Persian ancestors."

The plan of the palace, as given by Diodorus, was the same as that in the palace of Semiramis at Babylon; viz. that of a series of platforms, elevated above each other, each encircled with walls and towers, the innermost being the royal residence. In fact, the palace, as here described, was a castellated gaol. The second wall was of double the height of that without, and the third and inmost was a square, and cut in the mountain, and was further defended by palisades and doors of copper. The existent remains consist of terraces or platforms, upon which stand columns and magnificent portals. The fronts of the terraces are decorated with bas reliefs, and the ascent is by staircases, of which the steps are so low, that a horse might trot up them. It is evident, from the details, that the palace consisted of distinct courts, and that the universality of columns in all the apartments (at least in those of state), caused them in the

\* Enc. Method. v. Persepolis.

† Mem. Instit. iii. 212. 302.

interior to resemble churches. The description of Solomon's palace \* seems well to illustrate this of Persepolis. A fifth platform, of much more extensive elevation than the others, is thought to have been part of the dwelling quarters of the royal residence; for such a distinct habitation existed.† The palace destroyed by Alexander is supposed to be concealed under a grand unknown remain, now covered by heath; others think it was only of wood.

The several parts of this superb collection of architectural remains present many noticeable distinctions. The chief are the *columns*. So numerous are these, that the place is thence denominated *Takhel Minar*, or *forty columns*, forty being a term for any indefinite number. Some of them are from seventy to eighty feet high, the shafts being fluted to the top, and the component pieces bound by a band of metal. The pedestals are curiously wrought. The capitals are formed chiefly of squatted camels and basket forms. Upon these Mongez ‡ makes the following remark:—"It cannot be denied, that capitals formed by squatted columns are not absolutely foreign to Egyptian architecture, nor are those of the basket form also found at Persepolis; but these have no relation to any particular country, but are common to all, before the invention or under ignorance of the Greek orders. Some analogy may be found in the gross monuments of Easter Island, in the Southern Ocean. In truth, the capitals of the columns of Elephanta, with the exception of those formed by squatted camels, are in the same taste as those of Persepolis."

Some of the capitals are also tauriform, and are formed by the heads and bodies of kneeling bulls, and project like brackets to support the entablature above. They are presumed to allude to the celestial bull, or rather to the sun in that prolific sign. Imitations of them occurring at Delos, the ensuing comments have been made:—"Such capitals were executed before Zoroaster had reformed the worship of Persia, under

\* 1 Kings, c. vii.

† Id. v. 8.

‡ Mem. Instit. ut supr.

the auspices of Darius Hystaspes, when 'the religious code of that philosopher was adopted by the state, on the ruins of the ancient and proscribed idolatry.'\* Kneeling bulls are introduced in the frieze of the temple of the sun at Heliopolis or Ba'albeck. At the temple of Solomon, the "molten sea" or "labrum," wrought by a Tyrian artist, stood upon twelve "oxen," which were placed in four groups of three "side by side," and probably with their hind parts enveloped in the substance of the metal. It is remarkable that on the antique celestial globes, the sign Taurus was represented having the hind part deficient, as if cut off, like those of our capital. Eratosthenes said, this was done to leave room in the astronomic sphere for the constellation called Pleiades, and bulls were often so defined on Greek coins, as on many of Samos.†

*Bas-reliefs.*—The interior faces of one enormous portal are sculptured into the forms of two immense quadrupeds, which, on near approach, are found to represent two colossal bulls. The inner sides of another have winged bulls with human faces, the only specimen known to exist in Persia, and probably intended to represent Cyrus himself. This is inferred from certain passages in the prophets Ezekiel† and Daniel.§

The approach to the chief and magnificent hall consists of an esplanade, which has three flights of stairs, one in the middle and two at each end. The face of the wall which supports this platform is covered with *bas-reliefs*. These are most satisfactorily elucidated by sir Robert Kerr Porter. The subject is the feast of the vernal equinox, when the Persians presented their gratuities, and the governors of provinces with their delegates, brought in the annually collected tax from each, with a due proportion of offerings besides. This interpretation is supported by the following circumstances,—Darius adopted the style of Cyrus in receiving presents from his own countrymen, instead of tribute; and pro-

\* Stuart's Athens, vol. iv. Delos, 26. new edit.

† Ezek. i. 7. 9, 10.

‡ Dan. vii. 4.

† Id. 27.

fessor Grottefund has so far translated the cuneiform or arrow-headed inscription, as to show that Darius is the subject of both. Accordingly, sir Robert ascribes the sculpture in question entirely to Darius [Hystaspes]; but this makes little difference in the architectural character; for Cambyses only died in the year 522 before Christ, and Darius began to reign in the year following. Mongez contends, that as the style of the figures has not the Egyptian character, the workmanship is to be ascribed to Persian artists. The bas-reliefs show the ancient method of stringing the bow, and the manner of attaching it without cover to the quiver, which protects the feathers of the arrows from damp. No sword or dagger appears in any one of these armed figures. They were doubtless the *doryphores* or body-guards. The chariots drawn by bulls, the bulls, &c., the led horse for sacrifice to the sun, the spearmen, and others, resemble the procession of Cyrus at his first great royal sacrifice. The ornamented ball at the extremity of the spear denotes the *melophores*, or thousand guards of Xerxes who bore at the end of their lances apples or pomegranates of gold.\*

In confirmation of the elucidations by Sir Robert Kerr Porter, it is to be recollected, that the sophi, and the mogul in India, still exhibit themselves to their subjects and receive presents once a year; and that the processional and simple figures bear the strongest relation to such a ceremony; especially as this is attested by the coins of the Achæmenidæ, and a head from Persepolis†, which has a curly wig, the distinctive costume of the *gana*, or attendants of the gods, in Indian temples.‡

Among the bas-reliefs are also (i.) the king seated on a chair of state, with both feet resting on a footstool. The last appendage distinguishes great persons, in Egyptian, Greek, and Roman monuments, with very few ex-

\* Sir R. K. Porter, pl. 31—36. pp. 585—598.

† Engraved in the *Archæologia*, xiv. pl. 57.

‡ Bombay, *Transact.* iii. 279. 295. Gough's *Salset*, pl. 7. 20.

ceptions. (ii.) A hero combating with wild beasts. Sir Robert Kerr Porter supposes this figure to represent Darius Hystaspes, or his son and successor Xerxes, and the beasts to be allegorical symbols of certain countries subdued by them. This is questionable; for Mosheim says, that Mithras first signalised himself by ridding Persia of wild beasts; and the combats of men with beasts, and lions tearing bulls, may allude to this fact; for St. Croix admits that the benefits of civilisation were probably alluded to in the Mithraica.

*Doors and windows* occur of granite, of black marble polished like a mirror, cut out of a single stone, and adorned with inscriptions and different mouldings. The principal doorway and high marble windows are yet in their places; their lofty entrances and perpendicular jambs resembling, though with the finest workmanship, the Druidical monument of Stonehenge. The frames of the doors have all one sort of bas-reliefs, namely, a royal personage, followed by two attendants bearing an umbrella and a fly-chaser; the use of the umbrella being regarded in Persia as a privilege of royalty alone. The king holds in one hand a lotos, in the other a sceptre.

*Ceilings* appear, and have commonly in relief a man holding a circle, borne upon a winged object. M. Sacy, from the Persian mythology, and the occurrence of this figure upon coins, makes it a spiritual being, called *Farouher*, meaning the principle of sensation.

*Cornices*.—Very superb ones appear in the portals.

*Terraces*, or *esplanades*, ascended by staircases, and basement stories, here first appear.

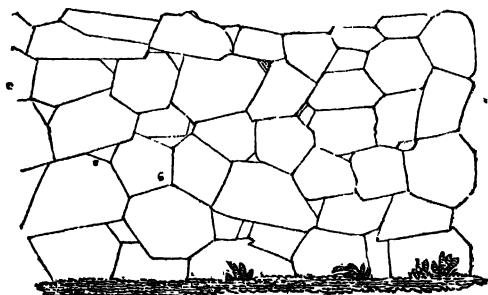
*Tombs*.—Those, which are situated on the side of a rock, are not accessible from below, and in that respect resemble the embankment and Amran hill near Babylon. They at first, like the pyramids, contained only sarcophagi. A fire-altar consists of square faces with round pillars, and *arches between them*, by way of panels.\*

\* Sir R. K. Porter's plates,

From the above description it will appear that the Persepolitan style is a distinct national one, formed out of the Babylonian, Indian, and Egyptian.

Before leaving Persepolis, a peculiarity must be noticed. Unlike Babylon and Nineveh, it had no town walls, because it was surrounded by a circle of mountains, the passes of which were guarded by fortresses.\* Polybius says that Susa had not walls, being fortified like a camp; and Strabo says the same of Ecbatana.†

Thus it appears, that, in the most early periods, town walls were limited to level sites.



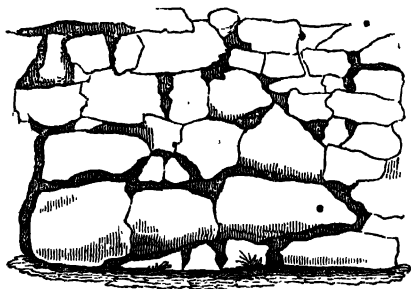
In the construction of ancient walls, chasms and interstices were deemed disgraceful. To avoid this, in the first and oldest Cyclopean style, small stones were inserted among the larger, but by means of what Aristotle calls the *Doric rule*, i. e. a *flexible strip of lead*, polyhedric stones were made to join together. When the stones of their quarries, says Alberti‡, were hard and intractable, they did not hew the pieces into right angles, but fitted the uncertain forms by applying the flexible rule, and dressing the sides and angles. Thus much time and labour were spared. This style is de-

\* Ency. Méthod. v. Persepolis.

‡ De Re Edific. fol. xcvi. 6.

† Pratt's Q. Curt. ii. 530.

nominated the polygonal, and, together with the third and following style, appertains more especially to the fortified places of Græcia Proper, as well as to the Peloponnesus.\* It has been improperly denominated the second Cyclopean style; but colonel Leake thinks that it should rather be deemed the Pelasgic. Speaking of the walls of Messene, he says, that the style of them indicates that the second order, or the polygonal, was not practised in the fourth century before Christ; and that, in reference to Italy, we have reason to think that this style was not much in use after the seventh century before our era; for the cities of that country, which furnish the finest examples of this style, are of a period anterior to the extension of the power of Rome. Undoubtedly, he adds, there may have been particular instances, both in Greece and Rome, in which the polygonal masonry was employed at a much later period,



especially in periboli and terrace walls; but he is inclined to think that, in general, whenever it occurs of this kind, exhibiting no appearance of courses, the work may be attributed to the seventh or eighth centuries before the Christian era, or to still earlier periods.† At Larissa is a fine specimen of this order. It is without any horizontal courses, and the stones are exactly joined

\* Walpole's Travels, i. 318, 319.

† Leake's Morea, i. 378.

and smoothed on the outside. In the latter particular, it differs from a piece of the exterior Hellenic wall, where the stones, though not less irregular in shape, and joined with equal accuracy, are rough on the outside, and also of larger dimensions.\* A very fine specimen is to be seen at Segni in Italy†, and an arched gateway at Rhyniassa is very curious.‡ According to



ARCHED GATEWAY AT RHYNIASSA.

the dilettante publications, the *incertum* of Vitruvius, as consisting of polygons with unequal sides, was borrowed from this style; and in the supposed temple of Themis at Rhamnus, the joints are not only made to fit with uncommon precision, but, like colonel Leake's specimen at Larissa, the face is polished.§

Mr. Dodwell ascribes the disuse of this style to the time of Alexander.|| The third, or succeeding style, is distinguished by the position of the stones in horizontal courses, but varying from regularity, by occasionally descending below or reaching above the line. This third style is seen in the Phocian cities, and in some of Bœotia and Argolis¶, according to Mr. Hamilton. Mr. Walpole\*\*, however, says, that both this and the pre-

\* Leake's *Morea*, ii. 395.

† *Antichi Monum. Firenze*, t. xii.

‡ Hughes's *Albania*, ii. 340, 341.

§ *Uned. Antiq. of Attica*, c. vii.

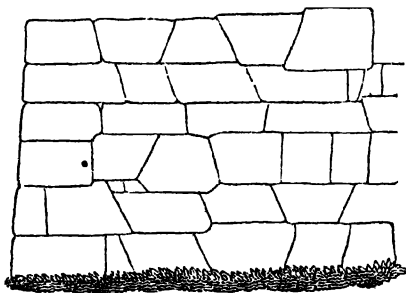
|| *Greece*, i. 504.

¶ *Archæologia*, xv. 322.

\*\* *Travels*, i. 318, 319.

## ARCHITECTURE.

ceding style appertain to the fortified places of Græcia Proper, as well as to the Peloponnesus. The fourth and succeeding style presents horizontal courses of masonry,



not always of equal height, but formed of stones which are rectangular. It was chiefly confined to Athens and the frontier towns of Attica.\* This style was particularly used in sacred and domestic architecture, and is seldom found in works of defence unmixed with the Tirynthian and polygonal styles.†

All these styles afford examples of that early state of architecture, when the additional security acquired by the position of the centre of a lower stone opposite to the junction of the two superincumbent blocks had not been observed. Each stone rests almost entirely upon that below it. This peculiarity is observable in the walls of Mycenæ and Tirynthus, as well as in those of Lycosura in Arcadia, reputed the most ancient city of the Peloponnesus.‡

With the age of Epaminondas, 370 years before Christ, commenced a style consisting of horizontal layers of stones, somewhat irregular in their sizes and angles, the stones oblong, in courses without mortar.§ This

\* *Archæologia*, ubi supra.

† Leake, i. 53.

‡ Gell's *Thaca*, 57.

§ *Ibid.* Dodwell's *Greece*, 151, 152.

style is seen at the Leucadian promontory; now Santa Maura, and at Messene, now Maura-Matra, of which hereafter. This style of hewn oblong stones is very common in Italy, and a good specimen occurs at Populonia.\* Alexander's reign takes date a few years afterwards, viz. 336 before Christ, and with that commences a variation of style rather than a new one. Mr. Dodwell speaks of this style, in allusion to Plataea (near Kokla), in manner following:—The walls, which, in some parts, are in a high state of preservation, are extremely interesting, since we are acquainted with the precise period of their construction, or rather restoration; for they were rebuilt in the time of Alexander. It is worthy of observation, that the walls of other free cities, whose construction is similar to those of Plataea, were probably all built about the same period. The walls of Messene and Megalopolis, and part of those of Orchomenos and Ambryssos, resemble those of Plataea. The latter was destroyed by the Persians; and both Thucydides and Pausanias agree that the whole town, except the temple, was subsequently rased to the ground by the enmity of the Thebans. There are a very few and imperfect remains of the original walls, which were constructed before the several demolitions, and which are in the ancient rough state, but they have been evidently almost rebuilt from their foundation. The walls are in general composed of regular masonry, with some irregularity in the size of the stones, which does not appear to be symmetric. They are about eight feet in thickness, and are fortified by square towers, with a few of a circular form. They are ornamented with perpendicular stripes or incisions, similar to those of the ruins of Agia Euphemia in Locris, and which occur in most of the walls of this period. At that place, the blocks which compose the walls are ornamented, and cut with parallel perpendicular, but sometimes horizontal, lines; ornaments to be seen in many other parts of Greece, and

\* *Antichi Monumente*, 1810, fol. t. x. Firenze.

still used, particularly in Italy.\* Such were the styles of the ancient Greek military architecture; and it may be here proper to remark, that one general rule of travellers is to determine the antiquity of ruins by the size of the blocks, small stones being indicative of modern eras.

This account shall be followed by other general characteristics of ancient Greek fortresses; and afterwards by more particular elucidations. They are invariably placed on high and commanding rocks, their form being decided by the nature of the ground, and their foundations resting on the bare rock, in which excavations were made to serve as wells or granaries. This rational mode of adapting the works of art to those of nature obviated the necessity of ditches; which, indeed, do not seem to have been used even where the ground was level. Valleys, ravines, and the beds of torrents generally form their dikes and intrenchments, and the precipices above them are nearly as inaccessible as the walls which they support. No arches appear in the doorways and windows; they are surmounted by single architraves. The ordinary width of the walls is from eight to nine feet; their height from twenty to forty feet. Square and round towers were frequently used; the former at the angles, and at the distance of about fifty feet, in the straight walls; the latter at the angles, where these were very acute. Thus Mr. Hamilton.†— These general characteristics are to be thus enlarged from the work of colonel Leake, a minute observer, and accurate judge of Hellenic fortification. He uniformly makes towers more recent additions; but whether he is well supported in that hypothesis is no further clear, than that they were of more rare occurrence in remote eras, and in those eras were solid, mere platforms, to gain command over assailants by height. In two general positions he seems to have been perfectly accurate. The first is, that the point of defence chiefly lay in the

\* Dodwell's Greece, i. 145. 278.

† Archæologia, xv. 323.

numerous compartments of the interior; and that there was, in the earliest specimens, a deficiency of flank protection. To bring the subject into a clearer view, it may be better to divide it into *sites*, *acropoles*, *walls*, and *gates*.

*Sites*.—The usual site was any elevation which commanded the plain beneath; sometimes, as at Kalakolo, a promontory connected by an isthmus. Diodorus, in his account of Sicyon, shows that precipitous sides were valued, because, being difficult of access, it would not be possible to attack the walls with machines. At Assos, the acropolis stands upon a rock of granite, with very steep sides. At Lilæa, the site is a rocky and abrupt acclivity, projecting from Sarnapos. At Olenos, it was a small round hill; near Trachea, a simple eminence; at Phryxa, the summit of a pointed hill. The situation of Philæ, a most perfect specimen, is a hill accessible only on the east and south sides, the other two being precipitous. At Teichos, the hill with the acropolis is in a great measure surrounded by deep and extensive marshes, which communicate with the sea, and appear to have had but one entrance, opposite that, and is approached by a difficult and winding path. On Parnassus and the plain of the Cephissus, at the rocks of the mountain (says Mr. Dodwell), may be enumerated eight fortified places, remarkable for the strength of their position; which generally is a rugged height, naturally difficult of access. Walls, with square or round towers at intervals, were continued along the irregular contour of the hill, which served as an acropolis, or citadel, while the slope of the mountain, with a portion of level ground at the bottom, was enclosed; and contained the houses and buildings of the city. Sometimes heights were fortified for the defence of a pass in the mountains. We see an instance of this in *Palaio Castro*, in the ὄδος σχίστη (cleft way), and another on the road to Parnassus, from the upper part of the Cephissus, which leads to Salona and Delphi. The

fort of Phyle on Mount Parnes, and one near a gorge in Cithæron, continuing from the plains of Eleutheræ into Bœotia may be added.\* Elevations, however, were not always the sites; for Mr. Dodwell says, that the *Kopa* of Homer was seated on a low insular tongue of land, projecting from the foot of Mount Ptoon, near the Kopaic lake.

*Acropoles.* — This term is applied to the fortresses of cities, and resembled, in intention and principles, our castles annexed to towns. The most ancient, as that of Tiryns, are very small; and that of Mycenæ is a very grand specimen. At Lepreos, a triangular wall is carried completely across the acropolis, and thus divides it into two parts. At Træzen, now Damala, in Argolis, and other places, it was connected with the city by intermediate fortifications. At Orchomenos, the ancient town was converted into an acropolis, because it was situated upon a high, steep, and insulated hill. That of Rhyniassa, supposed Elatria, contains a very fine subterranean apartment, at the end of a narrow passage. Temples of Minerva, because commonly placed upon very lofty sites†, occur in them; and for this, among other reasons, we meet with the celebrated Parthenon in that of Athens. In general, the chief public buildings were situated, for the sake of protection, within their enclosures. They were supplied with water by tanks, to catch the rain, wells as at Tiryns, or a stream diverted, as at Mycenæ, to flow near them. At Agia Euphemia, a fortified city, situated upon a plain, there was no acropolis at all; nor Mantinea, nor Megalopolis, and other cities not anterior to the time of Epaminondas. In most Grecian cities that have an acropolis, lateral walls lead from the base to the summit, where they almost meet in a point, and nearly form an equilateral triangle. Drymaia, near Dadi, is a good specimen.

\* Dodwell, l. 508.

† "Templumque apparet in arce Minervæ." — *Virg. Æn.* iii. 531.

*Walls.*—In the early Cyclopean fortresses of Greece, we find only elevations of artificial rocks, a projecting abutment, a divided interior, and a sidelong and commanded entrance: salient angles and multiplied towers seem to have been subsequent improvements; for, in things of this kind, improvements grow out of circumstances, not out of theory. The singular feature of the Cyclopean fortresses are the galleries: they occur not only in Greece, but in Italy. The remains of some are observed at Argos; others are seen at the ancient cities of Cora, Norba, Signa, and Alatrium, in Italy, the walls of which resemble those of Tiryns, Argos, and Mycenæ. Colonel Leake supposes that they were places of arms. In an open fortress, they may have been merely covered retreats of the garrison.

There are two grand distinctions of era in Greek fortresses: one is the Cyclopean, which was retained in military architecture; while temples and civil buildings were formed of more regular construction. These styles obtained from the heroic ages till the time of Alexander. The second is the last period, which ends with the year 146 B. C., when the Romans, having conquered Greece, destroyed the fortified places.

The characteristics of both periods are easily discriminated.

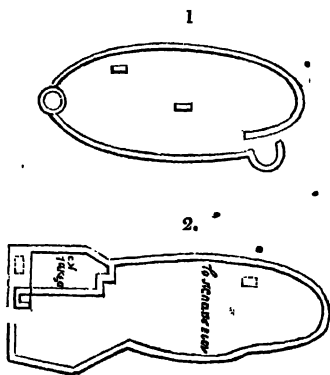
In the early stages of society, the fortresses were small, and occupied the summits of hills: so were also situated many of the ancient Arcadian cities, of which five only were inhabited in the time of Pausanias; namely, Gortys, Theison near Methydrium, Teathis, and Helisson: all places seated in the most central mountainous and poorest part of the country.\*

The earliest appear to have neither towers nor salient angles, and to have been chiefly fortified by numerous interior divisions. The entrances are, however, covered. Such are Tiryns and Mycenæ. The next period may be denoted by salient or receding angles, to

\* Leake, ii. 319. 325.

which were afterwards added towers. Colonel Leake could only discover one of these in the citadel of Phigaleia; and the reason which he assigns is, that the evenness of the ground rendered it easy to discover an enemy. It seems, however, clear, that towers were subsequent additions for the cover and protection of terminations and angles. Indeed, the author quoted, who made the military architecture of Greece his especial study, forms this distinction of the priority of projecting and re-entering angles from a fortress at Khaiaffa, where on one side are towers, the apparent additions of a later age.

These old fortresses have no precise shape, because they follow the outline of the elevated site, and adapt the citadel to the circumstances of the ground. The figure (No. 1.) is that of Phigaleia; that (No. 2.)

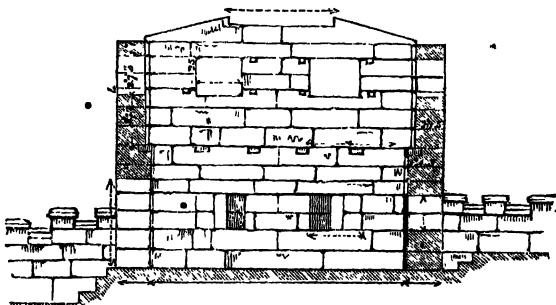


of Nerovitza (olim *Aliphia*), where the citadel is in an angle of an ante-camp, called προαστειον.

At Typanæ is an upper and lower citadel; at Lepreos, one divided into two parts by a cross triangular wall. At Acradina, in Syracuse, there are remains of a strong tower, with a staircase leading down to the sea,

admirably constructed for defence ; the steps cut in the rock being twice interrupted by a plain perpendicular surface, in which a few holes alone afforded assistance to the climber in his ascent. At Halicarnassus, now Badrun, or Boudron, the ancient walls of the city have been traced for some distance, beginning with what might have been an acropolis, for the city had *more than one acropolis*, as we learn from Strabo and Diodorus. The wall went in a western direction, between a small and a large mound, for about 130 feet. One of the ruined square towers, built of stone, without cement on the outside, and filled with earth, is thirty feet high. There are four more, communicating with each other by an interval of wall : they are what Diodorus, writing of Halicarnassus, calls towers and intermediate towers (*πύργοι* and *μεσοπύργοι*). The polygonal wall, which fortified the defile between the Acharnesian and Thriasian plains, and is deemed contemporary with the Peloponnesian war, sixty years before the new style introduced by Epaminondas, is about four miles in extent, and is terminated by a cliff, on which stood the celebrated fortress of Phyle, "the very strong fortress" of Diodorus, Cornelius Nepos, and Plutarch. This famous wall consists, says Mr. Hughes, of barriers or breastworks, each, on an average, about 100 yards in length, ten in height, and eight in breadth ; attached to which, inclined planes, like buttresses, gave facility of ascent to the defenders. Between these barriers an open space was generally left, through which the combatants might either advance or retreat, though, in some instances, it was closed up by masonry, for the purpose of exposing the assailants in flank to the weapons of their adversaries. Nearly at the middle point of the defile, a broad passage was left for the admission of chariots. This plan of a succession of disjunct portions as barriers, instead of a continuous line, is singular. At Toulis, an ancient road stands by a strong wall, of which the coping consists of immense blocks.

*Fortresses of the Alexandrian era.* — It has been already observed, that to the polygonal style succeeded



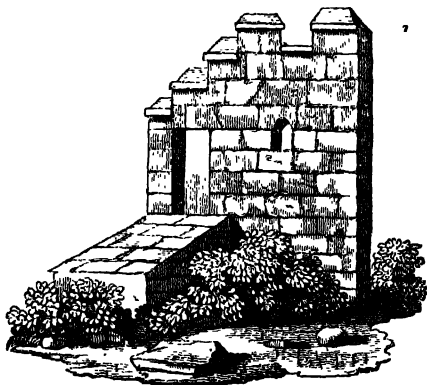
one of horizontal layers of stone, with some irregularity in their sizes and angles, and that this style is



coeval with the time of Epaminondas, 370 years before

Christ. It is well illustrated by the existing remains of Messene.

He also adopted a new site; for, instead of a hill, he fixed upon, at Megalopolis, the middle of a plain, which had an unfailing spring of water, that could not be in-

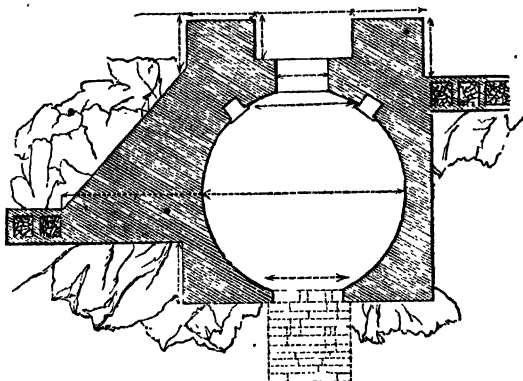


tercepted\*; a circumstance which seems to hint in what manner the old Cyclopean forts were rendered untenable under a long siege. The northern entrance to the city of Messene consists of a circular court, a form presumed to have been adopted as affording greater space for the scrutiny of the persons or carriages entering the city, as well as to present a second barrier to a successful enemy, who, having forced the gate, would find their advance impeded by another obstacle; while the citizens, from the ramparts surrounding the courts, could with advantage annoy the assailants confined within this restricted space. The two solid masses of masonry which flanked the entrance most probably formed the foundations of two towers that defended the approach to the gate.† Whether there were two or

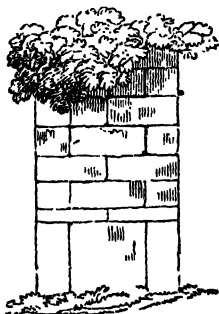
\* Leake, ii. 41.

† Stuart's Athens, new edit. vol. iv. p. 21, pl. 1.

three instances is controverted. The carriage entrance in the centre is supposed to have been covered by a



large block, eighteen feet ten inches, by three feet four inches high, and four feet wide. The width of the



entrance seems to have been eight feet ten inches ; and wheel ruts are visible. The road, on quitting the gate, descends on a rapidly inclined plane towards the city, and is composed of oblong pieces of stone. The walls

are faced with regular blocks, tied together at intervals of from seven to ten feet, with transverse walls, the bays being filled with rubble work.

The towers in the preceding plate are very curious. One resembles a broad house of only two stories, with a platform at top for combatants to annoy besiegers, and two square windows to each story; those of the lower being splayed, as in castles, to admit light, and allow a greater range for the archers. There are no indications of a staircase between the two stories, so that they were probably mounted by a moveable ladder. On each side of the upper windows are square holes perforated through the wall, which probably received some iron-work to defend the opening.\* At certain distances there were flights of steps, which led on to the walls from the interior of the city, and again from the walls: some few steps ascended or descended to the level of the floors of the towers. The curiosity of the towers is the staircase fashion of the battlements.

*Mantineæ*, another city of the same era, has a foss around it, into which the Ophis flows. The Bœotian Thebes had a similar protection, although rare in Greek fortresses.

At Gyptokastro (probably Eleutheræ), which is of the same style as Messene, the walls are fortified with projecting square towers at unequal distances. Many of these towers are nearly entire. They were divided into two stories, each of which had two rooms, at least the upper story, which has two entrances from without, and three small windows. The lower story has only the door, which is but  $3\frac{1}{2}$  feet wide at the base, and diminishes upwards. At Cnidus, now Cape Crio, the walls are terraces, and, like those of Pompeii, are divided into intervals by towers standing upon them, not projecting. The intention was to prevent an enemy who had obtained possession of one of the interjacent spaces from extending his conquests any farther. Sir William

\* Stuart's Athens, new edition, p. 23. iv. pl. 11.

Gell, in his "Ithaca," has engraved walls inclining inwards, and the towers perpendicular, as in the cut.



Simple towers occur. Of these, the most singular are the pyramidal. At Phonika, Pausanias saw one, which contained the shields of those who fell in a battle on that spot, between Prætus and Acrisius: of course, it must have been as ancient as Tiryns. There were others, which, though perpendicular above, were pyramidal at the base, as at the grove of Æsculapius, and the citadel of Chæroneæ, and a *phryctonon* near Argos; so named from a torch or beacon, because the watchmen made signals from it by smoke in the day and flame by night. The lower chamber is square, and was approached by a side door at the bottom of an entrance passage.\*

These accounts apply to the public fortresses of ancient Greece; but there were prototypes of modern castles. Dr. Clarke saw one represented on a Macedonian coin, thus:—



And an assimilation to it may be seen in ruins at Tem-rook, formerly Cimmerium. Sir William Gell thus describes another, near the mountain Sasypelaton, the ancient Arachne, the walls of which, erected in a very advanced period of the arts, are almost perfect. The entrance is on the side farthest from the road. The fortress is nearly square, having at the north-east angle a quadrangular tower, at each of the others one circular. The gate is defended by a fourth circular tower

\* Stuart's Athens, vol. iv. new edit. p. 23. pl. ii.

in the centre of the south-west side. Upon the principle of the barbican in our own castles, there was here, as in all other Greek castles, an outer and an inner gate with an interval between them. The passage, as also in all the Greek fortresses, does not run directly into the heart of the fortress, but parallel to the curtain for some paces, before it turns into the fortress. The intention is obvious. A few men in the passage could resist a host of assailants, and fresh defenders from the garrison repair losses, or the passage could be easily blocked up. The interior construction of this, as well as of the towers of Messene before described, may receive some auxiliary elucidation from the following account of the modern *pyrgos* of the agha at Miraka, described by Mr. Dodwell, and assimilating all others. It is a sort of castellated structure, or fortified house, bearing a resemblance to similar kinds of highland castles in Scotland, which were constructed about 300 years ago. It is four stories in height; the walls, which enclose the ground floor, have one door and a few narrow apertures, resembling arrow-holes, made to admit the light. This floor serves for horses and cattle, and has no communication with the upper stories. An insulated mass of wall, with steps leading to its summit, stands at the distance of about twelve feet from the tower, and reaches as high as the door of the first habitable floor, which is over the stables. From this wall to the entrance of the tower there is a drawbridge, or, in times of perfect peace, some planks of wood, which are not removed at night. The floor and stairs within the tower are of wood, and the access to some of the most secure chambers is through a square aperture, which is made in the ceiling of the room below, and is sufficiently large to admit only one person at a time. The ascent to this is effected by a temporary staircase or ladder, which may be drawn up, and the trap-door closed.

Thus far may suffice for the ancient MILITARY ARCHITECTURE OF GREECE: for, upon the surrender of

Corinth, with the rest of Greece, to the Romans, in the year 146 B. C., all the fortified places were dismantled.

THE RELIGIOUS ARCHITECTURE OF GREECE seems next in importance; but, being far better known, will be more summarily treated. The distinction and antiquity of the orders is a necessary preliminary. Whether they were borrowed or not from Egypt and Asia, is a question of considerable difficulty, which has not been satisfactorily decided. According to subsequent statements, it may be inferred that the introduction of the orders followed the return of the Heraclidæ, in the year 825 B. C. The Doric is known to be the first in date of Grecian remains, and it has been most ably and satisfactorily discussed by colonel Leake. This order, he says, although styled Doric, is, in fact, the European Greek, in contradistinction to the Asiatic Greek, called the Ionic. It was invented in European Greece, about the same time that the Ionic was produced in Asia, and was equally employed by every tribe of Greeks, as well in Græcia Proper as by the colonies of those tribes in Italy and Sicily. At the same time it is not improperly termed Doric, inasmuch as it was brought to perfection (invented, says professor Müller\*), in the Doric cities, which were the early schools of art in European Greece.†

The buildings in which the Doric almost exclusively appears are temples. It is not presumed, although Homer mentions *νηοί*, a term for temples, that they were architectural constructions of stone, because no assimilations occur in the remains of Mycenæ and other Cyclopean edifices; and there are evidences that the Doric temples succeeded wooden prototypes. With this statement agrees professor Müller‡, who says that Corinth was the first place where the front and hind part were finished off with a pediment, the tympanum being adorned with statues of clay-work (*terra cotta*).

\* Dorians, b. iv. c. l. sect. 3. ll. p. 273. Engl. trans.

† Morea, iii. 269.

‡ Ubi supra, 276.

He adds, that "the Doric character created the Doric architecture. In the temples of this order the weight to be supported is intentionally increased, and the architecture, frieze, and cornice of unusual depth; but the columns are proportionably strong, and placed very close to each other. This impression of firmness and solidity is increased by the rapid tapering of the column, its conical shape giving it an appearance of strength; while the diminution beginning immediately at the base, and the straight line not being, as in other orders, softened by the interposition of the swelling (*entasis*), gives a severity of character to the order. With this rapid diminution is also connected the bold projection of the echinus, or quarter-round of the capital, which likewise creates a striking impression, particularly if its outline is nearly rectilinear. The alternation of long unornamented surfaces, with smaller rows of decorated work, awaken a feeling of simple grandeur, without appearing either monotonous or fatiguing. The harmony spread over the whole becomes more conspicuous, when contrasted with the dark shadows occasioned by the projecting drop of the cornice; above, the magnificent pediment crowns the whole. Thus in this creation of art we find expressed the peculiar bias of the Doric race to strict rule, simple proportion, and pure harmony."

Let us now refer to colonel Leake again. The Cyclopean artists were chiefly employed in the construction of treasuries, not of temples, which afterwards served for the same purpose as the former. Another fact, deducible from the remains of Mycenæ, as well as from the descriptions left by Pausanias and other writers, of the Greek buildings of those times, is, that there is nothing borrowed from Egypt, nor any assimilation, except in columns (common to all countries), between the temples of the two nations. The distinctive peculiarities of each may be traced to the nature of the respective regions. In a narrow valley, scarcely ever moistened by the atmosphere, but annually inundated by the river, enclosed between stony ridges, and

deficient in forest trees, the dwellings and temples were excavated in the rocks, or, at a later period, were imitations of caverns, with flat roofs, situated on heights beyond the reach of the inundation. In the rainy climate of Greece, on the other hand, a pitched roof was necessary. The country abounding in timber as well as stone, the earliest Doric buildings were naturally formed of the materials more easily wrought; and hence the temple of stone was an imitation of a construction in wood, as all the details of the Doric architecture tend to prove. Upon the whole, therefore, it may be concluded, that the Doric order arose as soon as internal tranquillity had followed the settlement of the Heraclidæ in Peloponnesus, 825 B. C. ; and that it arose in those cities which were the earliest seats of art in Greece, namely, Sicyon, Corinth, and Argos. As a proof that the first temples were built of wood, there still remained, in the time of Pausanias, the ruins of an oaken temple at Mantinea, of extreme antiquity; and the oaken column in the Opisthodomus of the Heræum of Olympia, if not actually a relic of a more early wooden temple of the same dimensions, was, at least, a memorial showing that the most ancient Heræum had been constructed in that material. Three centuries are not too much to allow for the space of time which elapsed between the first conception of the Doric temple in wood, its execution in stone, and of the dimensions of the extant columns of Corinth. This will bring down the Corinthian temple to the eighth century before the Christian era.\*

Nothing can be more easy than to ascertain the era of the Doric. The length of the column, and the size of the entablature, are alone sufficient; the shorter the former, and the heavier the latter, is the test which decides the antiquity, as will appear by the following concise enumerations.

1. *Corinthian temple*.—The oldest known, presumed date eighth century B. C. Characteristics: short mono-

\* Leake, iii. 270.

lithic column; projecting capital; very high entablature, not less than half that of the column, including the capital; intercolumniation very narrow; in some the length of the column is only four diameters.

2. The next in date, about 600 B. C., is the *Pantheon at Aegina*. It is more ancient than the Theseum, because the entablature is heavier, and the column shorter. The dilettanti artists assimilate its architecture to that of the hexastyle hypæthral temple of Pæstum.

3. The *Theseum*, or *temple of Theseus*, at Athens. The length of the columns is fixed to six diameters. This improvement Vitruvius states to have been made by the Greeks, who passed from Athens into Asia Minor; but this will bring it to a period too remote. The Theseum was built only 461 years B. C. The columns are six feet high, and the entablement only a third of the column. The pediment is very low; and, according to Le Roy, the triglyphs, &c. first appear.

Corinth, in the sixth century before Christ, was the principal seat of the arts in Greece, and is supposed to have furnished the models of the oldest hexastyles of Pæstum and Sicily; for the hexastyles (six columns in front) are older than the heptastyles or octostyles. The difference of the colonial Doric colonel Leake ascribes to the architects themselves.

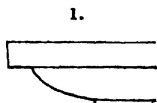
These differences consist chiefly in shafts formed of several pieces instead of one, columns somewhat more light than those of Corinth, a wider intercolumniation, and a lighter entablature.

The heptastyles (seven columns in front), the octostyles (eight), and the enneastyles (nine), succeeded the hexastyles; but a lighter kind of the latter still prevailed. Colonel Leake, speaking of the hexastyles at Acragas, says, these temples are lighter in their proportions than the temples of Pæstum, Syracuse, Egesta, and Selinus. These may be supposed not earlier than the year 500 B. C., but probably not much later, as the architects of Magna Græcia appear, in the fifth century,

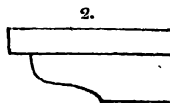
to have begun to lose that simplicity and uniformity of design which are still remarkable in the two Acragantine temples. This deviation is very conspicuous in the plan and details of the heptastyle of Jupiter Olympius at Acragas, and in the enneastyle at Pæstum. The florid ornaments under the capitals of the columns in the latter temple, as well as in the smaller hexastyle at the same place, indicate a similar deviation. These, however, were elegant innovations; but the architect seems to have been deficient in the good taste of Sicily, when he made the *entasis* (or swelling of the columns) so apparent, that they look like a caricature of the Doric order. At Athens, the entasis is so small, that its existence has only been recently ascertained.\*

The declining Doric appears at Nemea, and is characterised by the slenderness of the columns. Those at Nemea are more than six diameters high, or as slim as those of the Ionic. The entablature at Nemea was less than the fourth of the height of the column, whereas at Corinth it was but a half; the architrave of this temple being so low, and the capitals of the columns so proportionally small and narrow, compared to the height of the shaft, that the impression is one of inelegance and meagreness. This temple is probably not of remote date.†

Thus it appears that nothing can be more easy than to ascertain the antiquity of Doric edifices. The oldest columns are not more than four diameters, the next six, and the most recent more: but, besides this distinction, the ancient and modern capitals vary thus:—No. 1. is ancient, No. 2. more modern.



\* Leake, iii. 284.



† Id. 332, 333.

Other minute variations might be adduced ; but it is not the plan of this work to enter into them. It may be sufficient to observe, that the ancient Doric column has no pedestal or base. Upon what an immense scale this Herculean order was wrought, may be conceived from the temple of Jupiter Olympius at Agrigentum, where the flutings of the columns are thirteen feet in diameter ; the echinus of the capital composed of two large stones, each weighing twenty-one tons and a half, and the stones composing the capital twenty-one tons.\*

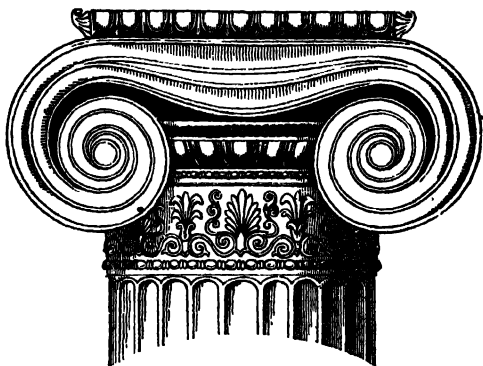
The IONIC is the Asiatic Greek. If the Asiatic Greeks were distinguished in their character and in their literature by a certain degree of voluptuousness and excessive refinement, a similar exuberance of fancy may be also discovered in their monuments. The composition of their decorative sculpture is beautiful ; and the execution, although not so exactly finished as the work of the time of Pericles, is bold and imposing. Two different periods are distinguishable in the Greek architectural sculpture, but which to prefer it would be difficult to decide. The ancient was of a delicately minute design and highly finished execution ; the latter not perhaps so correct in composition, but more largely and nobly composed, and the execution productive of a finer effect of light and shade. The latter is more impressive ; the former, although generally too much cut up, is certainly more refined.† According to Vitruvius, the order was invented by Hermogenes, for the purpose, by lengthening or shortening the columns, of varying intercolumniations, the latter being closer, as the columns were higher. The finest specimen known of the order is that of the Erechtheum at Athens, and one of these columns is, we believe, in the British Museum.

The *guilloche*, or curb bit chain, here occurs perhaps for the first time, and was such a favourite of the Romans, as not only to appear upon almost all their tessell-

\* Stuart's Athens, new edit. vol. iv.

† Id. sect. Fragments, 56.

lated pavements, but to have been imitated in glass,



which count Caylus \* highly values, as a great token of mechanical excellence. Then follows a beading of eggs, below which are a smaller moulding and a deep ornament, combining with scroll work the *anthemion*, a flower of fan-like expansion, and very popular and diversified among the Greeks. It is presumed to have been borrowed, with other ornaments, from the East.† Of the volutes, various illustrations have been given; perhaps the best is that derived from the horns of an altar.‡ The most probable origin of the capitals of columns is, however, that, the latter having been primitively of wood, they were decorative improvements of the trunk of a tree cut off at the head; for such is the reasonable hypothesis§ to be deduced from Alberti. There is, however, no uniformity in the patterns; for at *Ætylos*, now *Vitulo*, in Turkey, there are variations in the capitals: other instances occur; but the beauty of all the ancient

\* Rec. ii. 363.

† Stuart's Athens, new edit. v. iv. p. 12. sect. Sepulchral Marbles, &c.

‡ Id. p. 11.

§ L. vii. c. 6. fol. cli.

kinds is rapturously applauded. Shallow capitals and square bases are seen at Eleusis. The latter, Alberti contends, were only the Doric embellished by two annulets; but the early Doric had *no* bases, and there were variations here also. Colonel Leake mentions Ionic columns with filled flutings.\*

The CORINTHIAN order is said to have originated with Callimachus, who took the idea of the capital from a sepulchre of a girl, which had been decorated with the acanthus in a similar manner†; but no trace of such an order, says Mr. Dodwell‡, is to be found at Corinth. Corinth, according to Müller, had, however, early (at least 490 B. C.) risen to riches and luxury. Indeed, the form of the early Corinthian capital is said to be analogous to that made by the lotus in Egyptian architecture.§ Dr. Clarke saw at Thebes several beautiful capitals of the most ancient and chaste pattern. It is entirely without volute at the corners, and has a single wreath of the simplest acanthus foliage to crown its base. Colonel Leake calls one of these primitive capitals only a variety of the Ionic order, with pelices and leaves of acanthus.|| Stuart found this early form of the capital in the portico of the Temple of the Winds at Athens; and there are numerous examples and varieties to be found in that city and in Asia Minor. A concave face of the abacus is supposed to denote a more modern form.¶ At Mylasa the order occurs with elliptical shafts.

It is too extensive for the plan of this work to enter into architectural minutiae. The origin of the ARCH, geometrically constructed, is contested; but the predominant opinion is, that it is not older than the time of Christianity. Arches formed by cutting away the interior surfaces of parallel blocks, a mode by which vaults of a large span could not possibly be constructed, are far

\* Morea, ii. 38.

† Vitruvius.

‡ Greece.

§ Stuart's Athens, new edit. v. iv. sect. Grecian Ornament, p. 12, n. h.

|| Morea, ii. 5.

¶ Stuart's Athens, vol. iv. new edit. sect. Bassæ, p. 17.

more ancient ; and Belzoni \* saw at Thebes two modes ; one formed by projecting blocks, the other by smaller stones, worked in a modern way, but without keystones. Arches of more than a semicircle are considered to be only of Roman ancestry.

The most eminent fabrics connected with Greek architecture and the orders are TEMPLES.

Temples succeeded barrows, or sepulchral mounds with altars raised upon them : the temple of Jerusalem was founded upon the mountain where Abraham offered Isaac, and the sepulchre of Cecrops conferred sanctity upon the Acropolis of Athens. Moses does not mention any temple of architecture, only an altar surrounded with stones, what we should call a cromlech and druidical circle ; assimilations to the Greek *baituloi*, mentioned by Pausanias. At Charai, in Achaia, he saw thirty stones of a quadrangular form, each of which was worshipped under the name of some divinity ; for the Greeks anciently paid the same veneration to rough stones as they afterwards did to statues.† \* Moreover, a place once consecrated retained its holy character. The Greek writer quoted mentions, as occurring at the city of Phrixia, a ruined temple of Minerva Cydonia, which was in his time only a place of sacrifice. Colonel Leake observes ‡, that vestiges of churches, similar to those of the temple which Pausanias describes, are common at the present day in Greece. Sometimes nothing is left but a line of stones to represent the wall, with a single block, commonly of ancient workmanship, for an altar. Here incense is burnt, and prayers are said, on the festival of the saint.

That the Phœnicians and Egyptians were the first founders of temples is repeatedly asserted in ancient books ; but such books ascend to the mythological eras. It is certain, that there are no indications of any Grecian temples in the Cyclopean ages, and that archi-

\* PL 44.

† Dodwell's Greece, li. 173.

‡ Leake, li. 209.

tectural structures of this kind are coeval with the first Doric. It is plain, too, that there is no assimilation of plan between the temples of Greece and those of Egypt, or the caverns of India. The first Grecian temples have been before shown to have been made of wood, out of which, by the natural progress of improvement, grew those of stone, and the Doric order itself. Nearly all the existing remains are of that style; and the solidity of it apparently recommended it, from the subjection of the country to earthquakes. This inference has been deduced from the care exercised to prevent disjunction of the component pieces of columns, by plugs of wood, lead, or iron, in the centre of the blocks. Nearly all the Grecian temples had the same form, that of a barn, ornamented with columns upon the fronts and sides; Pausanias mentioning only six round temples, which had domes, by no means a modern invention. The domes were formed by a very simple contrivance, still used in Turkey. A perpendicular pole was raised in the centre, to which a horizontal arm was annexed, and, as the workmen proceeded with the courses, it was elevated until it came to a perpendicular. Several of these temples were *hypæthral* (i. e. unroofed), because Vitruvius says that such a distinction suited the properties ascribed to Jupiter Fulminans; Cælum, the Sun, Moon, and Deus Fidius. The temples of Minerva, Mars, and Hercules were to be of the Doric order, because the majesty of it typified the robust virtue of those divinities. The Corinthian was employed for those of Venus, Flora, Proserpine, and the Aquatic Nymphs; the elegance of the foliage, flowers, and volutes harmonising with the tender and delicate beauty of these goddesses. The Ionic, which was the mean between the severity of the Doric and the delicacy of the Corinthian, was used in the temples of Juno, Diana, and Bacchus, as giving a just mixture of elegance and majesty. The rustic work was devoted to the grottoes of the rural deities.

Vitruvius further gives the sites of temples, as follows :— *On eminences overlooking the city* : those of Jupiter, Juno, and Minerva, as tutelary deities : Virgil mentions one of Minerva, as common in citadels. *In Fora, or Emporia* : of Mercury, Isis, and Serapis. *Near theatres* : of Apollo and Bacchus. *In gymnasia* : of Hercules. *Without the walls* : of Venus, Vulcan, Mars, and Ceres ; of Venus, in particular, at seaports. Modern authors say that all hypæthral (unroofed) temples are generally, if not universally, consecrated to Jupiter, and that all his temples are of the Doric order, those of Venus being generally of the Corinthian.

Vitruvius says that effect was consulted in the sites of temples, for prospect over a city or a river, or on a highway, for passengers to see the interior, and do reverence to the gods. It is certain that, according to the usual rule of viewing edifices, the propylæa were generally so contrived as to exhibit two sides at once. Greek temples have most commonly an easterly aspect, but at Phigalia was one which stood east and west. At Cadachio, in Corfu, a temple has been discovered in a ravine.

Diodorus mentions two modes of building temples : one, which made the nave (*ναός*) the whole width, and had no peristyle, i. e. piazza, around it ; the other, where it had this adjunct. The latter plan, called peripteral, distinguishes nearly all the temples known to us. When the side columns were inserted in the walls (the style called pseudo-peripteral) like pilasters, both methods may be said to have been compounded. At Sparta, says colonel Leake\*, was a very ancient temple, consecrated to Venus, which had an upper story, sacred to Morpho (a name of Venus), and containing a statue of the goddess veiled and fettered.

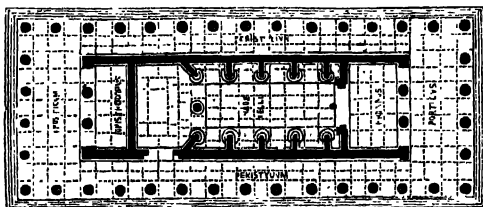
Grecian temples had the following compartments,

\* Leake, i. 168.

best understood by a plan, such as the following, of the temple of Apollo at Bassæ.

The several component parts are thus elucidated :—

In the *peristyle*, or portico, around the temple, the people assembled, as anciently in our nave and aisles, because they were not permitted to enter the *cella*. In



these porticoes goods were sold, and business transacted, as afterwards among us. The Greeks also made promenades of them, and called them περιδρομοί (walks around them): Here rhetoricians held their schools, orators harangued from them, and children of the highest rank were sent for instruction. They also afforded a retreat from heat, and were spacious receptacles for works of art and sculpture.

The *porticus* answered to our great western door; the *pronaos* to our ante-chapel; the *cella* to the choir, which the people did not enter; the *naos* to the presbytery, or part where the communion-table stands; the *opisthodomus* to the lady-chapel. The temples stood in an area, called ἱερόν, or *peribolus*, like our church-yard.

The *cella* was generally of solid wall, because it formed an essential support to the pediments charged with sculpture. The latter seems to have originated from the necessity of harmony with the enrichment, resulting from the combination of the capitals of the order, the varied entablature, and the cornice of the pediment, decorated with painted or sculptured orna-

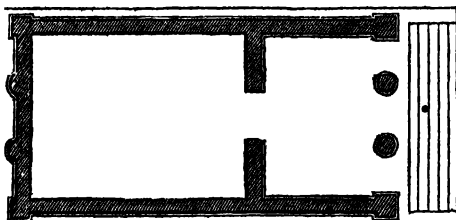
ment.\* The favourite subjects of these sculptures, in the early temples, were the battles of the Centaurs and Lapithæ, and of the Greeks and Amazons. Most of the sacrifices were made on a platform, in front of the *naos*, where there was, on some occasions, a fixed altar, protected by a covering. In the temple of Juno, at Agrigentum, seats are observable for the purpose of viewing the sacrifice. The *pronaos*, or *opisthodomē*, was often enclosed with rails. The *arca* (*peribolus*) around the temples was necessary, because the great concourse of people present at the ceremonies during the time of the festivals could not allow admission into the interior. It may be seen, from the plates of M. Quatremère de Quincy's work, that, when the doors were thrown open, and the statue of the god exposed, the effect must have been grand. The Greeks also overcame difficulties as to aspect, through restricted space, in the following manner: — On account of the proximity which necessarily occurred between the columns of the porticus and *pronaos* at one end, and between those of the *posticum* and *opisthodomē* at the other, they made the columns of the *pronaos* and *opisthodomē* of less dimensions than those of the *peristyle*, in order that, by their reduced height, and by the step below, an optical illusion might be produced, equivalent to the effect that would result, from distance. Where the sculpture of the capitals, &c. was of too low relief for strong effect, they were painted to supply the desideratum.

The following is the classification of temples, given by Vitruvius and the architectural writers: —

The first (i. e. the simplest) are those which had no columns on the sides. One of these is the temple *in antis* (1.), where there are only two columns, one on each side the door; the other where there is a porticus of four columns, and therefore called the *prostyle*. (2.)

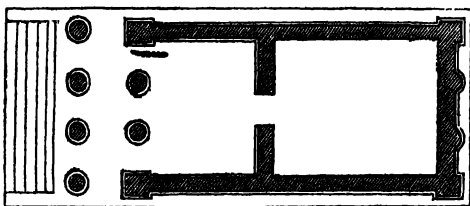
\* Stuart's Athens, new edit.

1.



The word *antæ*, called also by the Greeks *παρισταίς*, meant the square pilasters terminating the walls of a temple. When a temple had no portico in front, two columns were made to intervene between the *antæ*, and the aspect of the temple was said to be *in antis*, the Greeks called such a temple *ναὸς ἐς παρστάσιν*, and it was the simplest form of their temples. The temple *in antis* had neither *cella* nor *peristyle*.

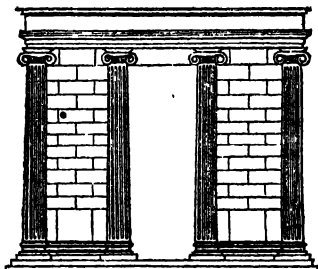
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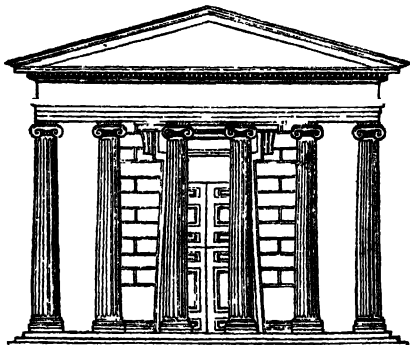
This temple had a portico in one front, consisting of insulated columns, with their entablature and *fastigium*, i. e. the pediment or triangular front. When such a temple had a similar portico in both fronts, it was termed *amphiprostyle*. The temple of Ceres at Eleusis was *in antis*, before the portico was added which made it *prostyle*.

The next natural distinction is by the number of columns in the front.

The first is *tetrastyle*, or four columns in front.



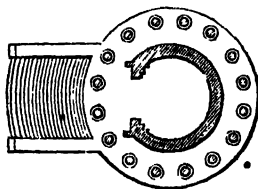
The second is *hexastyle*, or six columns in front.



The *octostyles* were eight columns in front, the *decastyles* ten.

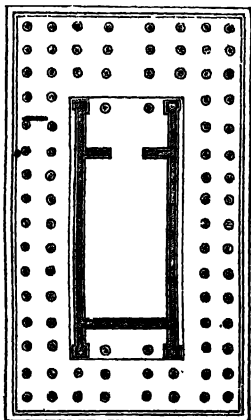
The construction of temples according to their sides or flanks is thus classified, — the *peripteral* is a temple

which had a walk all round it, formed of columns and extension of the roof. The subjoined figure represents a round temple with this addition.



When the columns like pilasters were not disengaged from the walls, the construction was termed *pseudo-peripteral* (*mock peripteral*), and this often happened when they had no stone of sufficient scantling or strength to bear epistyles of prodigious dimensions.

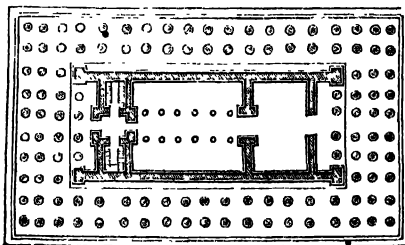
There were further distinctions. A temple, which had no cella, but consisted of columns disposed in the



form of a circle, covered with a conical roof, was called *monopteral*.

The term *diptral* implied a temple surrounded by a double range of columns.

The *hypæthral* was a temple whose cella was in part exposed to the air. These temples had a double range of columns within the cella, dividing it into three *alæ*, or aisles. The aisles on either side were roofed, but that in the middle had no covering. Mr. Wilkins has given the following plan of one :—



It is a requisite, says Mr. Wilkins, of an *hypæthral* temple, that it should be *diptral*; and of the *hexastyle-hypæthral* we have instances at Pæstum and Ægina; of the *octostyle-hypæthral* at Selinus; but Vitruvius adds, that they were generally *decastyle*. They were mostly, if not universally, dedicated to Jupiter.

The width of the intercolumniations was also discriminated by proper professional terms; as follows:—*aræostyle*, so wide that only timber could be used; *diastyle*, three diameters of the columns; *eustyle*, the best,  $2\frac{1}{2}$  diameters of the column; *picrostyle* only  $1\frac{1}{2}$  diameter; *systyle* two diameters.

There are some architectural terms particularly frequent in the description of temples, which therefore require explanation. The *podium* is the raised *stylobate* upon which the temple stood. The *stylobate* means the substructure below the columns, sometimes formed of three steps, which were continued round the peristyle,

and sometimes of wall raised to a considerable height, in which case it was approached by a flight of steps at one end. The *pediment*, or *fastigium*, means the triangular front, supported by the columns. The *entablature* comprises those members of a portico which rests upon the columns: it consists of three parts; the lower (*epistyle*) formed by those pieces which extend from centre to centre of two adjoining columns; the *xophorus*, the centre of the three divisions, having the epistyle below and the *corona* above, the same as the frieze among us; and the cornice (*corona*)\* the upper member.\*

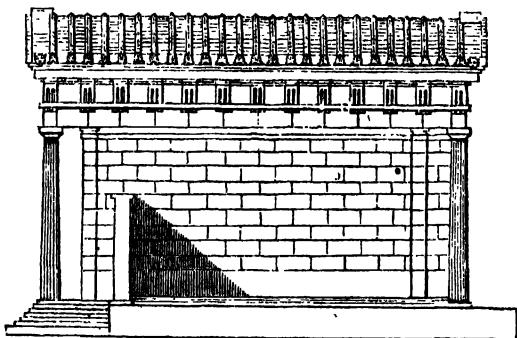
At Oetra, a mountain in Eubœa, Mr. Walpole saw, and thus describes, a very curious temple without columns, and assimilating the mouth of a cavern:—The roof is simply a covering of stone, which is made to support itself, and of which no other example is known. That portion of the roof which lies upon the walls counterpoises that which forms the ceiling. The eastern wall was probably built a little thicker, in order to counterbalance the slabs, which on that side were not beveled away and notched, as those were on the west. The inclination of the slabs answered two purposes: *first*, to throw off the rain; *secondly*, to throw the weight more upon the wall. The opening between the opposite projecting stones must have been about two feet; which was probably formed with a ridged stone, the whole being covered with slabs: in short, the whole roof appears to have been an affair of calculation, and plainly denotes a considerable progress made in the art of building. The remains probably belonged to a temple of the Cyllenian Mercury.

Instead of columns, some temples, as that of Jupiter Olympius at Agrigentum, had *Telamones*, or gigantic male figures, backed against square pilasters; and at the Erechtheum in Athens, female figures, called *Caryatides*, or rather *Canephoræ*, support the roof.

\* Wilkins's Vitruv.; Gloss.

The Greek temples had ceilings, commonly composed of marble slabs in compartments ; and in the temple of Minerva at Syracuse the long stones which connected the columns with the walls formed a ceiling in the style of a platband around the peristyle of the building.

Byzes of Naxos, who lived 580 years before our era, is said to have been the inventor of marble slabs worked into the shape of tiles for the roof. As the wet would be admitted through the joints of these tiles, another sort, called *harmi*, i. e. jointing tiles, were used. At Rhamnus, these last tiles were semi-hexagonal prisms hollowed underneath. The cut below shows the mode



of covering the roof with marble tiles affixed to timber framework. The upright pieces of the eaves of the roof, rounded at the top, terminate the alternate row of the *harmi*, or joint tiles. The ornament upon them was painted. The joint tiles of the eaves terminated in upright pieces, first rounded at the top, and afterwards indented or scolloped. The lower course of the tiles was formed in blocks twice the length of the other tiles. The joints take place over the centre of every triglyph. The tiles of the eaves, to which the joint tiles were attached by plugs, were the raking top-bed of

the cornice.\* Thus the roofing of the Propylæa at Eleusis. In the Doric buildings, with which we have been hitherto made acquainted, the roof terminates in a *stillicidium* (dropping eaves); but in the Temple of Diana Propylæa, at the same place, the upper moulding (*sima*) of the pediment cornice was continued along the flanks, and a channel was hollowed in it for the purpose of receiving the rain which fell upon the roof. In this member of the building, lions' heads are sculptured in bold relief, through the perforations of which the water effected its escape. The tiles of the roofs were made of baked clay (of which below). The alternate joint tiles terminated at the ridge and eaves with a flowing ornament. The top-bed of the cornice, in blocks thrice the length of the tiles, was saddled at the joints, and constituted the lower course. In the centre of the upper surface of this, a check or stop was formed, to which the joint tiles, ending with a flowered ornament, were cramped. Every block had two perforations, through which the water, falling upon the roof, escaped.†

The learned editors of the "Pompeiana" add the following illustrations:—Two forms of tiles were used in ancient buildings. The *imbrex*, placed in regular rows to receive the shower; and the *tegula* (answering to the Greek *harmus*), which covered and prevented the rain from penetrating the joints. The latter were finished at the eaves with upright ornaments called *antefixes*, which were repeated also at the junction of these tiles along the ridge. These ornaments are called by Pliny *personæ*; from their being probably at first *masks*. (See the cut p. 89.) He refers their invention to Dibulades, a Sicyonian potter, established at Corinth, who called them *protypes*, being stamped in front only. Those upon the ridge, an after-thought of the same artist, and worked on all sides were named *ectypes*. From the circumstance of their being originally formed of a plas-

\* Unedited Antiq. of Attica, pl. 3, 4. pp. 12, 13.

† Id. p. 40. pl. 7.

tic material, the ornamented ridges (*antefixes*) still continued to be called *plastes*, after Byzes of Naxos had introduced marble in their execution ; of which material he cut all these ornaments, as well as the whole covering of the roof, but still adhered to the original form and detail. The tiles of the temple at Ecbatana were of silver. The cuts below appertain to antefixes. The pattern of one is a *persona* or mask ; of the other, the Greek *anthemion*.



Subterraneous passages have been discovered in connection with temples at Pæstum and Agrigentum. They are presumed to have been for the private entrance of the priests ; but, from the communication of such a passage with the remains of an altar at Argos, Dr. Clarke has thought that a person thus secreted delivered the pretended oracular answers.

An important adjunct to temples was the *altar*. Altars were commonly placed on the eastern side, at the entry of the temples, and before the statues of the gods, which in general occupied the centre. At the time of sacrifice the doors were opened, that the people without (only priests and privileged persons entering, the interior) might see the victim. They who offered sacrifice touched the altar, and repeated the sacred words with the priest. The altar was also touched on taking an oath ; and we retain the same forms, with only the exchange of the Bible for the altar. In short, all the most important acts of public and civil life were performed at

an altar. When any particular deity was to be honoured, his altar was dressed with boughs and garlands, sometimes with woollen variegated bandlets.

The first altars were simply made of turf (*aræ gramineæ* or *cæspitiæ*) placed under trees, or covered with boughs of oak for Jupiter; of laurel for Apollo; myrtle for Venus; poplar for Hercules; ivy, vine, and fig, for Bacchus: pine for Pan; cypress for Pluto and Silvanus, for all which the Latins substituted vervain. Hence Horace\*, — “*Illic vivum mihi cæspitem — verbenas pueri ponite.*” To turf succeeded stone (the most common material), brick, marble, metal; even the ashes and horns of the victims curiously interlaced; from which arose the horns of the altar, or salient angles of the platform. Roman coins exhibit altars with the horns of animals, but more often with fictitious ones. Sometimes altars are inscribed with the title of the god to whom they were dedicated, or were denoted by his symbols, — as tridents and dolphins for Neptune, &c. Altars were of three kinds: — 1. The *απυροί*, or *αναμνιστοί*, altars without fire or bloodshed; because they were only used for oblations of honey, cakes, and fruits. In a church at Caprena (*Chæronea*) Dr. Clarke saw two ancient circular altars, with fluted intervals like a column. The base and head, also circular, projected from the trunk; the latter very much, for receiving a table — the top of the altar being hollowed out into a square form for this purpose. These altars, says Mr. Dodwell, were placed on the roadside in the country. Harpocration describes such an altar, as *κιων ἐς ὄξυ ληγών* (a column diminishing towards the top); and Hesychius calls it, *βωμος ἐν σχηματι κιονος* (an altar in the form of a column). They are common in Greece, and were frequently formed of a coarse black stone. Those of Chæronea are, however, of white marble. They also obtained in Italy, and are at present used as pedestals for large vases. Their height is about three feet. They

\* Od. v. 19. 13.

are never inscribed, sometimes not fluted, and are frequently represented on painted terra cotta vases. The second kind of altars was the *εμπυροί*, where the victims were burnt; the third, where only perfumes were ignited; the fourth, called *βωμοί ανωμυνοί*, four-sided stone altars, with but little ornament—were common in Greece, and without inscription, or any denotation of the deity to whom they were consecrated. Besides these, there were small altars for the *Lararia*, and portable altars, made of stones, which could be conjoined or dissevered at pleasure. One, a square pedestal, furnished with a pair of bellows to excite the flame, and a grating at the foot of it, occurs on the Hamilton vases. The usual ornaments of altars are festoons and rams' heads.

It is difficult to ascertain the antiquity of altars from their forms. Among the first Greeks, those of the *ἑοὶ οὐρανιοί*, celestial gods, were elevated; Pausanias makes that of Jupiter Olympius even twenty-two feet high; those of the *ἑοὶ χθονιοί*, terrestrial, flat, like a fire-hearth, only one foot high, according to Euripides and Pollux; of the infernal deities (*ὑποχθονιοί*), a hole in the ground: but in the end all these distinctions were lost. The altars of the Egyptians and Greeks, before the war of Troy, are distinctively characterised by the form of a truncated pyramid or cone, with an overhanging table hollowed to receive a dish or ashes, where the victim was burnt. They had also hooks, or points of metal, to which the animal was fastened. Nicomachus says that the most ancient altars, especially the Ionic, are more high than deep, and the cornice larger than the base; others, ancient also, are hollow at the top, and pierced on the side, to discharge the libations. Altars were also erected under trees, in groves, and elsewhere; but there were no altars in the caves of the nymphs and similar deities. According to these authorities, the antiquity of altars is decided by being larger at the top than at the bottom.

To temples were also annexed treasuries: these were

subterraneous cells. The interior of temples, besides the usual ornaments of sculpture and architecture, were decorated with arms taken from enemies, tripods, votive bucklers, prows of ships for escape from wreck, pictures for the cure of diseases, and other things decorative or valuable.

In the year 399, Arcadius and Honorius commanded the temples of Greece to be destroyed for the repairs of bridges, highways, aqueducts, and city walls; some being spared for churches.

Between a religious and civil character are TOMBS.

The Egyptian tombs were subterranean labyrinths, excavated chambers on the sides of hills, pyramids, or, for the lower orders, mere holes on the ground. Thus Belzoni; who has particularly studied the subject. Gergets, formed of a tablet in the form of an Egyptian temple, he supposes to be distinctive of the Egyptian kings; and painted chambers and sarcophagi to denote persons of rank. Vases, generally of baked clay, painted, with covers representing the heads of some divinity, either of the human form, or of a monkey, fox, cat, or some other animal, are sometimes found, and contain the embalmed entrails of the mummies. Pottery occurs in great quantities; and, in some, even wooden vessels, as if the deceased chose to have all his possessions buried with him.

The most ancient kind of sepulchre in Asia and Greece was the barrow or tumulus; i. e. a heap of earth, with a *stèle*, or memorial-stone, sometimes an altar, at top; sometimes chambers, with galleries within them, and a defensive wall around the base. There have been found in them vases; small columns; *stelæ*, commonly round pillars, with inscriptions; images of some animals; charcoal, and bones. Sometimes they occur near temples and ancient cities; but, in Greece, are generally indicative of a battle fought on the spot: for it was deemed an honour to the slain that they should be there buried. Such barrows were called *polyandria*, and were adorned with trophies, as at

Marathon; with a lion (symbolic of Leonidas), as at Thermopylæ. The earliest barrows known are mounds upon stone basements; or are composed of immense blocks. Size is also another test; for all these very ancient barrows are exceedingly large, and vindicate the account of Herodotus, that numbers of people were employed in constructing them, and that each person brought a stone. That of Patroclus, in the Troad, also immense, is ascended by a serpentine path; that of Ilus, adjacent, has a circular platform upon the summit.

The ancients had an opinion that to honour excellence after life produced high qualities, and stimulated the rising generation. Barrow-burial was a token of honour; and Homer thus describes the public funeral of Patroclus:—Wood was collected for the pile; and, when ready, the procession was headed by warriors, fully armed, in cars, followed by the infantry. The body was carried on a bier, in the middle, by companions, who had cut off their hair, in token of mourning, and laid it upon the corpse; Achilles followed next, as chief mourner, stooping over the body, and supporting the head of it. When arrived at the pile, and the body deposited near it, Achilles cut off his hair, made an oration, and put the former between the arms of the corpse. It was then placed upon the upper story of the pile; a large number of sheep and oxen were killed, and with their fat Achilles smeared the whole body of Patroclus from head to foot; placed urns full of oil and honey upon its two sides; killed four of the best horses, two of the best dogs, out of the nine which he kept to guard his camp, and threw them against the pile. Lastly, to appease the manes of his friend, he sacrificed twelve young Trojans, of the best family. He then set fire to the pile; invoked his friend; and, during the conflagration, poured out wine from a golden urn, upon the ground, still loudly calling upon the soul of Patroclus. In the meanwhile, all the chiefs having assembled around Agamemnon, Achilles

requested them to extinguish all vestiges of flame with wine, and to collect the bones of Patroclus without mixing them, because their situation in the midst of the pile would easily discriminate them; and to put them into a golden urn, with a double envelope of fat. The urn was then deposited in the tent of Achilles, and covered with a precious veil; the extent of the barrow marked out; foundations laid around it; and the earth thrown up; the whole barrow denoting both the site and dimensions of the funeral pile. In further honour, Achilles instituted games, of chariot races, the cestus, wrestling, single combat, the disc or quoit, and archery. The prizes show the manners and arts of the times: they consisted of handsome captive girls, skilled in needlework; a mare; a mule; a fat, handsome, wild bull; tripods of gold, with two handles; cisterns, not made for the fire, but fit to ornament a palace; and vases, with double bottoms; arms, and armour.

About the year 595 B. C., Solon moderated the luxury and expence indulged in funerals and tombs, by allowing only three habits to be interred with the corpse, instead of the greater part of his effects, before usual; by allowing no tombs to be made which ten men could not do in three days,—a kind of houses having been before made of them; and prohibiting all sculptured work which a single man could not execute in three days. The result of the latter injunction was, that no fine specimens of art are to be found in Greek tombs, because there was not time allowed for making them.

The ceremonials of Greek funerals may be divided into the customs connected with the *προθεσις* (i. e. laying out), and *εκφορά* (i. e. carrying out of the house). During the sickness, branches of the whitethorn (*rhamnus*\*), deemed an amulet against *incubi*, *lemures*, *striges*; and of laurel, to appease Apollo, as the god of physic, were placed at the door. At the

\* Nicander calls it *αλεξιασπην*. Lycophron and Euphorion, *αλεξικαιη πακον*. Pinxian. in Plin. xiv. 14. p. 513.

time of expiration, the sufferers addressed their prayers to Mercury, whose office it was to convey souls to the infernal regions: mothers, or the nearest in kin or affection, kissed the dying with open mouths, as if to inhale their departing spirits. After decease, the eyes were closed by the next of kin (συγκλίσσις τῆ ὀμματος), the face was covered, and the body, after being laid out, was, according to Bonn, consecrated, washed by persons called *καταγεωται*, anointed, perfumed, and wrapt in the *πεπλος*, an oblong square garment, resembling in fashion a Highlander's plaid, and generally woven long before by the wife. The feet and hands were tied by *κειριαί*, bandages; and this custom is illustrated in the case of Lazarus.\* The *nauton*, or piece of money to pay Charon's fare, was placed in the mouth; and a cake, made of flour and honey, to appease Cerberus. A house being deemed polluted where a corpse lay (see Numb. xix. v. 11., Ecclesiast. xxxiv. 25.), a vessel of lustral water from another dwelling was placed at the door, for visitors to sprinkle themselves with as they went out. The water was to be spring water; and Euripides calls it *πηγαῖον χερνίβα*, i. e. spring water to wash the hands. The vessel is denominated, by Hesychius, *γαστρα*, a word likewise denoting the hull or hold of a ship; by Pollux, *αρδανον*; and, by Aristophanes, *οστρακον*, merely a vessel of earthenware. The *suffitio*, or perfuming the house, and strewing *origanum* (deemed almost an universal remedy for all complaints†) and vine branches, were other customs. During this interval, called the time of the *προθεσις*, or *collocatio*, the corpse was placed at the entrance of the house, with the feet towards the door, adorned with garlands, and laid upon a couch, or litter, adorned with these, which were made of all sorts of herbs and flowers, and especially of olive. The cypress became a funereal tree, not, says Montfaucon‡, from its gloomy foliage, but because it never grows up again

\* John, xi. 44.

† Plin. xx. 17.

‡ Vol. vi. ed. Humphreys.

after it is cut down. People of condition placed boughs of it at the door; and we still see, on marbles, sepulchres with cypresses planted by them. Some hair, cut from the head of the deceased, was also hung at the door. The time of keeping the body above ground varied; the poor being buried soonest. Persons were stationed to keep off flies. Previous to the *εκφορά* (or procession to the tomb), a crier proclaimed, "Whoever will attend the funeral, must come now." To lead the procession there were "mourning women," as Jeremiah (ix. 17.) calls the Roman *præficæ*, the *αοιδῆς* or *ἑρηνων ἐξαρχῆς* of Homer, and the *πενθητριάς* of Nonnus. We hear also of the minstrels or musicians of scripture, who preceded, playing melancholy tunes, which the Greeks called *ιαλεμοί*, and the Romans *næniæ*. The addition of tumblers and buffoons, Dionysius Halicarnassus makes not a general practice, but one limited to persons who had lived merrily. There was such a variety in funeral customs, that none can be called universal.\* It is, however, stated that the face of the corpse, when carried out, was uncovered, and sometimes painted, to make it more agreeable, especially those of young maids; but covered when the face of the dead was deformed or changed. Euripides† makes the corpse to have been carried aloft‡ by servants§; but a Roman marble, in Montfaucon, which better accords with the action of Achilles in the Odyssey, places the two legs of the corpse upon the shoulders of a bearer; a second person supports it round the middle, and the chief mourner holds up the head and shoulders. Immediately before the corpse goes the person who pronounces, as he goes, the funeral oration: and this is conformable to Euripides. If the person was military, and died a violent death, his arms and armour were borne as now||: the former, probably, reversed, as Virgil says; a custom which we retain.

\* There are full details in Robinson's *Antiq. of Greece*, b. v. c. 1. p. 411. seq. ed. 2.

† *Alceste*, v. 607.

‡ *αεθμ.*

§ *σφεραλοί.*

|| *Rom. 249. Versis Arcades armis.*

We are told, that, in the burial of eminent persons, the mourners were clad in white, and adorned with garlands, and carried torches or tapers, or some ornaments for the deceased, or images of the infernal gods.\* The sons of the deceased walked with their heads veiled; the daughters bare-footed, and with their hair dishevelled.† This does appear upon the Roman marble, where the mourning gesture of the males appears to have been covering the face with the hand, or holding it to the mouth with the head inclined.‡ Other gestures were to throw dust or ashes in their faces (the *καρὰ κεχυμεθα* of Euripides); the *κίπτεσθαι* or *πενθειν*, to beat their breasts or thighs; to scratch their faces (*οὐξιν ἠλοκισμεθ'* of Euripides); to draw out ε, ε, ε, ε, whence came, according to the Scholiast on Aristophanes, our word elegy (*ἀπο τοῦ λεγεῖν ε*); to keep their heads and faces close covered, or lay their hands on their head, walk softly, keep silence, whence Ahab (1 Kings, xxi. 27.), and Isaiah (xxxviii. 15.); and, lastly, to cut off the best locks of their hair, and lay them on the grave or the funeral pile.§ The men walked before the corpse, and the women, if aged, or relatives, behind. Cremation of the body, as well as barrow burial, were certainly tokens of honour paid to the deceased; and Plutarch seems to connect it with the *apotheosis*, for he says ||, “The sons surrounded their father’s sepulchres at funerals, reverencing them as temples of the gods, and having burnt them, when they first met with a bone, said that the deceased was deified. This apotheosis was represented by the Romans, in the liberation of an eagle from the uppermost story of the pile, when burning. This eagle, soaring out of sight, they pretended to be carrying to heaven the soul; and hence came the representation of James I. riding upon an eagle, in Rubens’s fine painting upon the ceiling of Whitehall chapel. The primitive Greeks buried their dead in places within their own

\* *Νιστιων ἀγαλματα.*

† Montfaucon, v. pl. 1. fig. 2.

‡ Plut. Rom. Quest.

§ Rouss.

|| Quest. Rom.

houses, sometimes within temples; but the general rule was, in later ages, *without* the cities (*within* being an honour due only to public benefactors), by the highways; kings or great men on mountains, or at the feet of them. Under a sepulchral burial, the coffin (or *σφορ*) was of cedar or stone. There were epitaphs (*γνώρισματᾶ*), tombstones, and *stelai*; garlands, or festoons, crowning them, made, Athenæus says, of the flower *ποθος*, or parsley (*apium*). This explains the representation of them upon the tombs in Boissard, and the intention thus to typify the quiet of the dead from troubles, according to Clemens, or having won the victory over the grave, according to the Scholiast or Euripides; and there appears to be a metaphorical allusion to this practice in the phrase of St. Paul (2 Tim. iv. 7, 8.), "I have fought a good fight; I have finished my course: henceforth I have laid up for me a crown of righteousness." The *φύλλοβολις* was a custom of throwing boughs and leaves upon the grave, mentioned by Euripides, Servius, and Varro; and this custom, says Minutius Felix, was improved into garlands, sometimes made of woollen.\* The latter, called *tæniæ*, are the festoons or fillets which we see represented upon sepulchres and urns.†

It is remarkable, however, that although asphodel, myrtle, and mallow, were cultivated on the graves of the ancients, yet that the Greek foliage does not represent either of these sepulchral plants, or others alluded to by the classic authors; and its universal application to ancient decoration, both sacred and domestic, would indicate that its adoption as an ornamental embellishment does not convey its imitative origin. In the Egyptian mythology, flowers and branches are connected with the view of eternal life.‡ The *anthenion*, called also the lotus or palmetta leaf, divided into ramifications like a fan, is styled the funeral leaf, from its recurrence on almost all sepulchres, temples, and funeral vases.§

\* Rom. 268, 269.

† Enc. Antiq.

‡ Pintian, in Plin. L. xxi. c. 3.

§ Dodwell.

A broken amphora, as a *memento mori*, (see Ecclesiast. xii. 6.); virgins with vases denoting the water poured upon their tombs; symbols of the profession or character of the defunct, as a dog for a cynic, a syren for an orator; a woman in bed with her husband, for a beloved wife; an owl implying watchfulness; a bridle, a well ordered family; and a muzzle restraint of the tongue, for careful housekeepers; instruments indicative of professions, &c., or animals of favourites; as dogs; or horses of youths; a broken stem of a flower, an inverted torch, symbolic of death; and other matters which will be more fully noticed under the contents of tombs, are also of frequent occurrence.

Greek tombs and sepulchres are all of the hypogean or subterraneous kind. The secondary origin may have been after the barrows of Pergamus, which are cones of earth, erected upon the site of the funeral pile, constructed upon solid stone bases, and having interior vaults. The treasury of Atreus, at Mycenæ, is supposed to have been a tomb as well as a treasury, and belongs to the Cyclopean era. The term *hypogæa* (*subterraneous vaults*) has been, says Mr. Dodwell, confounded with the *spelæa* and *krupia*, which imply artificial caves on the sides of rocks and mountains *above ground*. The latter are frequent in Egypt, Persia, the Grecian colonies of Asia Minor, Sicily, and Italy. At Syracuse they compose an entire street; and near Corneto (Tarquinia) are some very magnificent, adorned with sculpture and paintings, and others of larger proportion, near Viterbo, have Etruscan inscriptions above the entrance. In Greece, *Castri*, the ancient Delphi has a rock, excavated into these sepulchral chambers, with entrances in the form of round arches. Some have three sarcophagi each under a round niche, and others of these sarcophagi near the monastery of *Kalogeroi* and the Caslatian spring still remain unopened, and, no doubt, contain vases of great beauty and interest. There are also magnificent tombs like those of Telmessus,

with the rocks cut in the form of folding doors, and small square edifices of large blocks and good masonry\*, once containing sarcophagi. In Greece, however, the excavations in rocks for sepulchral purposes are generally simple, and those at Athens, and even at Delphi, are inferior in grandeur and extent to the tombs in Asia Minor. There, too, the sarcophagi are more numerous, and larger. At old Smyrna, on the side of a hill, Pococke saw two kinds; the plainest sort consisting of a raised ground in a circular form, made of stones hewn out or laid in a rough manner. In these generally are two graves sunk in the earth, made of hewn stones and covered with a large stone. The others are circular mounts, walled round as high as their tops, having within a subterranean room, divided in some into two apartments. At Syracuse the *hypogæa* are catacombs forming a labyrinth, with cavities and coffins of all sizes. At Agrigentum they are of two stories, and no door; at Amphissa, and in other parts of Greece and Italy, they are cut in a rock, and formed within like a bell; at Taman, in Phanagoria, a stone sepulchre, of one entire mass of a cylindrical form, shaped like a well, and covered by a marble slab, was found in a pit. At the Chersonesus they are hewn in a rock, each tomb being closed by a single stone; at Claros, likewise, in a rock they have narrow door-ways, and within a large horizontal or transverse cavity for the body; but the most famous of all are those of Telmessus. Here the whole side of a mountain is cut into caverns, with architectural facings, in general like the pediments of temples and interior chambers elaborately wrought. In some instances they are fixed upon the craggy pinnacles of precipitous rocks; and others have no entrance, through being built over the body, or a concealed one. Circular arches and domes occur, and Dr. Clarke finds in the architecture traces of the Indian or Persepolitan style: the latter

\* Dodwell,

may have been the immediate original, for the tomb of Cyrus is of the temple form. Other forms, in assimilation of the funeral pile, resemble a book-case over a bureau.

At Gadara, in Palestine, the hypogæa are inhabited, as in the time of our Saviour. The ancients never placed one body upon another, as we do. Hence the number of cells. At Palmyra occur vaults under a temple, as now under churches; and around a temple, at Labranda, in Asia Minor, are sarcophagi, raised upon pediments; nor are recumbent effigies modern, for at Epidaurus is the draped statue of a female in such an attitude, which once apparently formed the lid of a sepulchre.

Every body has read in Scripture of the potter's field to bury strangers. At Athens, there were two of these common burying-grounds, called by the same name (Κεραμεικοί), one within, the other without the walls. That within, called by Thucydides the δημοσιον σημα, was devoted to those who died in the field for the good of the state. Over their graves were placed columns, inscribed with the names of the places where they fell, and their epitaphs. Here was celebrated the race, called *Lampadedromia*, where persons ran or rode with torches in their hands; and a marble has been found at Athens, representing a successful lampadist.\* The Ceramique of the suburbs was the haunt of the public women. It was divided into several fields and inclosures. Mr. Dodwell adds, that the Greeks also buried their dead not only by the highways, but at their gardens in their villas; and with regard to persons of great consequence, sometimes within their temples.

*Contents of the tombs.*—The chief and most common are articles of pottery, also found in Egyptian tombs, Mertese, near Corinth, is famous for furnishing vases. Several are broken into small pieces. Those excavated

\* Cayl. Rec. i. p. 117. vignette.

in the presence of Mr. Dodwell, and entire, were plain, and composed of a beautiful shining black varnish, remarkably light, and of elegant forms. There was also found a large cinerary urn of common earth, containing ashes and burnt bones; but these are very rare, sepulture being more common than cremation. Etruscan vases, it is to be observed, have no resemblance to those of Greece. Homer mentions the custom of placing vases with the body. The kinds are thus classified by Mr. Dodwell: —

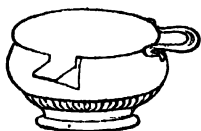
In the Scripture, mention is made of “an alabaster box (read *an alabastrum*) of precious ointment.” Alabaster vases, of the oriental kind, are found in the Greek sepulchres, and are presumed to have contained the oil or perfumes with which the body of the dead was anointed. Oil was used for this purpose in the most remote eras; but the perfumes were first brought from Persia, in the time of Alexander the Great. Mr. Dodwell has engraved one of these vases\*; of which Pliny compares the form to *elenchi*, or oblong pearls.



It seems that the finest oriental alabaster was found at the city of Alabastrum, in the Thebais; and the stone thence deriving its name, as Pliny informs us, was estimated, more than any other material, for preserving ointments. It is the *λιθος αλαβαστριτης* of the Greeks, and *Lapis alabastrites* of the Latins. The unguentary was known to the Greeks by the name of *ληκυθος*, *μυροληκυθος*, *αλαβαστρος*, or *αλαβαστρον*; and to the Latins by those of *alabaster*, *onyx*, and *ampulla*. It appears, that their local or particular term was subsequently generalised and applied to any material in which ointments were contained, for *alabastra* occur of lead, gold, coloured glass, in the sepulchres of Magna Grecia, and *terra cotta*. They are also called *λεκυθοι*,

\* Dodwell's Greece, i. 449.

*lecythi*. Other kinds were the *Dionysia*, distinguished by their subjects, and placed in the sepulchres of persons who were initiated in the mysteries of Bacchus. *Unguentaries* and *libatories*, common to all but the poor. *Lachrymatories* (see Psal. lvi. 8. *Put thou my tears into thy bottle*), perhaps also used for very precious ointments. *Larger vases*, with gymnastic subjects, supposed to denote victors in the games. *Toy vases*, or play-things for children. *Other vases, cups, and pateræ*, of various forms and dimensions, generally painted black. Some of these were probably used in common life, and particularly at the funeral supper; after which they seem to have been thrown carelessly into the tomb, as they are often found broken. They are seen upon the tables in the painted vases. Those with a spout and one handle, called Σπονδεια, are seen in the hands of Σπον-



δοζοροι, and the Οινουχοι at the feasts, who are pouring wine from it into the *diota*, or two-handled flat vase, out of which the ancients drank. They were also used for libations at sacrifices; and some of them were

probably the σφαγεια αμνια of Homer, in which the blood of the victims was received. The uses of these vessels, found in tombs, are declared by Plutarch \*, who, speaking of the funeral procession at the anniversary of the victory of Plateæ, in honour of the slain, mentions young men carrying "vessels full of wine and milk for the libations, and cruets of oil and perfumed essences," and a bowl of wine poured out. The dead were always supposed to be thirsty, an Egyptian notion, for Fabretti has published invocations to Osiris for cold water; and it is still customary in Bœotia to place vessels full of water in the graves of the deceased. In India, at the present day, spirits are supposed to delight

\* In Aristides.

in the peepul trees, and an earthen pot seen hanging upon one, was brought by a person whose father was dead, that the ghost might drink.\* The funeral, or cinerary urns, the Greek *οστυθλαί* and *οστυδοχεία*, the Latin *ossuaria*, are known by always having covers, and generally by being short and broad. Pliny mentions some large enough to contain the whole body, cremation not being very ancient. Among others found, have been some entirely solid, with or without sculpture or inscription. Those of a large kind are inscribed with the name and parentage of the deceased, and usually represent valedictory subjects, such as the *χρηστε χαιρε*, or last farewell: shaking hands with the dying person. Mr. Dodwell thinks, that they were votive vases of the poor, who could not afford any thing else; but some of them are so elegant and expensive, that they are presumed to have been originally ornamental *stelæ*, buried by accident or intention, when the ground was cleared. In support of this opinion, it has been observed, that the Greeks placed upon the tomb, instead of a cippus, a marble vase, or rather a representation of one, adorned with figures, either painted or in bas-relief. The figures represented apply to persons depositing locks of hair, or making libations, or under the oppression of grief, covering a cippus with bandelets, a custom mentioned by Plutarch, or chariot races, or funereal games. The form of these vases is that of an equal belly, very long wide neck, and jutting handles, equal or unequal; and from them is derived the custom in our churchyards of vases upon a pedestal, or as the ornament of mural tablets. The tombs of the poor, says Mr. Dodwell elsewhere, contained only human bones and pottery.

Pliny mentions a certain Regulus, who, through grief for the loss of his son, killed at his funeral pile several horses, dogs, and birds, which had belonged to the boy; and both Virgil and Plutarch mention the interment

\* Mrs. Elwood's Journey to India, i. 393.

of arms, armour, and chariot wheels in tombs. Elpenor says to Ulysses in Homer, "Put an oar, with which I used to row with my companions, upon this sepulchre." Accordingly, symbolic figures are commonly found in tombs; as in those of children, playthings, some of them puppets in pottery, with movable legs and arms\*; figures of animals, supposed domestic favourites; swords, leaden sling bullets, and flint arrow-heads, perhaps to denote soldiers; masks, perhaps players; sea-shells, perhaps sailors or foreigners; philosophers, sitting in chairs without backs, nearly resembling the curule chair of the Romans; *prædras*, or thrones with footstools, for a *prædros* (one of the Athenian senate of 500); Gorgon's heads of pottery, presumed amulets against the evil eye; lyres of wood, shaped like the shell of the tortoise; griffins, amulets; egg-shells, even one of an ostrich, eggs being symbolic of the reign and fruitfulness of nature; treasures and dresses belonging to the deceased; *atragals*, probably of an eminent practitioner in the game; iron fetters on the cetons, presumed of prisoners; *pateræ* and mirrors, thought to be denotations of female interments; box-wood combs; even bird-cages of pottery, the bars formed of threads; of earthenware, and other articles. Nevertheless, from the use of allegorical symbols before mentioned, it is evident that many allusions to the private history of the defunct must now be insusceptible of elucidation. Laminæ of lead, inscribed with bitter imprecations of enemies, found also in Egypt and Etruria, often occur.

The body was deposited in a *soros*, or, as more recently called, *sarcophagus*. This, however, was only the external case of a wooden coffin, made, according to Æschylus, of oak, to Euripides of cedar, and to Thucydides of cypress. Trimalchio, in Petronius, mentions *triclinia*, or eating rooms (still shown at Pompeii), as

\* *Νικησπαστα ἀγάλματα, Συλλαβια νικησπαστευμενα* of the Greeks; *Imaginentæ, icunculæ, oscillæ, sigillæ, sigillaria, sigillota*, and *larvæ* of the Latins.

annexed to tombs, and his foundation of an anniversary to be there kept. At *Malass*, the ancient *Mylasa*, is a sepulchre of the kind, called *distya*, or double-roofed. This is seemingly a Greek fashion, after the Roman era. It consisted of two square rooms. In the lower, which has a doorway, were deposited the ashes of the deceased. In the upper, the relatives and friends solemnised the anniversary of the friends, and performed sacred rites. A hole made through the floor was designed for pouring libations of honey, milk, or wine, with which it was usual to gratify the manes of spirits. The word libations implied pouring out some drops upon the ground, Anacreon says, of perfumed essences. The Greeks called these libations *χοαι*, and they chiefly consisted of honey, milk, and wine. The ceremonial, according to Euripides, was this: — They first went round about the sepulchre, pouring, in their progress, some of the liquid, and adding speeches to the deceased, and prayers to their manes and the gods, that they would be propitious to them. Lastly, Sophocles says, that they stood on the top of the tomb, and there repeated the libation.\*

*Cenotaphs*, or barrows of honour, were common among the ancient Greeks, as were also monuments in the *Ceramegus*: and Dionysius of Halicarnassus observes, that great men had often many tombs, though their bones were only contained in one. Thus Mr. Dodwell: — At Sparta is one, on which an eulogium is still annually pronounced, in honour of Leonidas and his brave followers. In the origin, the intention was to repair the omission of sepulchral rites, with regard to those who had perished in a foreign country, or by shipwreck, or in battle, so that their souls might not be prevented from passing the Styx. When they erected the cenotaph they made a proclamation three times, called *ψυλαγωγία*, inviting the manes to come and take possession. Ansonius mentions this practice, and Ovid

\* Rous, 267.

adds, that epitaphs were added to the cenotaphs, as well as to tombs.

The Greek *epitaphs* were very simple, and consisted only of the name, and a short character, as a *good man*, *good woman*. The Athenians put only the name of the deceased, of his father, and of his tribe. But in the collections of Greek epigrams are numerous *ἐπιτύμβια*, of various lengths, in pure Greek taste, *i. e.* simplicity and delicacy.\* At Amphikleia, or Dadi, a sepulchral stone was found, containing merely the name of the deceased, on a large slab of marble, to show the *psiphisma*, or public decree.

Either upon the grave, or close by it, says Rous, they were wont to erect a pillar (*στηλη*), which was generally from six inches to a foot in diameter. In the courtyard of the British Museum may be seen one about three feet in diameter. The most common shape of Attic tombstones was a truncated cone, with the smaller end downwards, and marked simply with the name of the deceased, but sometimes sepulchral marbles have various ornamented forms, or are inscribed with pathetic strophes; and, as may be inferred from numerous existing specimens of duplicate ornaments, were also exposed to sale at the workshops of carvers, adorned with foliage and figures, allusive to a future state, to the funereal ceremonial in use, and to the sex and pursuits of the defunct.

The remains of a civil kind, which occur most frequently in Greece, are THEATRES.

The drama was, according to Polybius, an invention of the Arcadians, for the purpose of civilising the rude manners of the inhabitants. The first efforts are said to have been made by a rustic chorus on the festivals of Bacchus and Ceres, the stage being a waggon, afterwards a movable wooden platform, called *ικρίον*. Thespis was the first who introduced an actor, who spoke only soliloquies. Æschylus added another for the

\* In Mr. Edwards's "Epigrammata," are no less than 107 pages of them, viz. pp. 196—298.

sake of dialogue, and, according to some authors, added painted scenes, and instead of faces smeared with wine-lees, gave them the buskin, and decently dressed them. Sophocles brought on a third, which number was not exceeded in the Greek tragedies during the same scene; but the rule was not observed in comedy. Players of second parts were obliged to speak so low as not to drown the voice of the chief actor. Tyrants, from the hatred of the Greeks, were always played by subalterns. The women were only dancers. Female parts were performed by eunuchs. That the characters might be distinguished (a difficulty in this respect arising from the size of the theatres), parasites and he-bawds carried a straight truncheon, called *αρεσκος*; the rural deities, shepherds, and peasants, the crook; heralds and ambassadors, the caduceus; kings, a long straight sceptre, heroes a club, and other characters symbolic accompaniments. The tragic actors generally carried a long staff, or an erect sceptre. They who represented old men leaned upon a long and crooked staff, called *Σολιον*. In paintings and sculpture, the figures of tragic or comic actors are known by long and strait sleeves; but servants in comedy have below the dress with strait sleeves a short tunic with half sleeves. The tunic of tragic actors descended to the heels, and was called *Συρμα*, *Ευστις*, *palla*.

Aristotle, in his Poetics\*, confesses that it was unknown in his time who invented the dramatic masks. Suidas and Athenæus says Chærcelus, a contemporary of Thespis; Horace, Æschylus. The inventors of the several kinds are, however, distinctly named. Thus, Suidas ascribes the first mask for a female to the poet Phrynicus; of a pedagogue to Neophron of Sicyonia; of valets and cooks to Maison, a Megaræan; hideous and frightful masks for furies Pausanias assigns to Æschylus, the serpents on the head being added by Euripides. The masks are said to have been made at first of leaves of the great burdoc (*arction*), then of the barks of trees, in the

end of leather, covered with linen or stuff. They were made by sculptors. Every kind of the drama had its particular mask. Those of the dancers and pantomimes, because they did not speak, had natural features and a closed mouth, and were therefore called *ορχηστρικά*, and *αφωνα προσωπεία*; those which denoted ghosts *μορμολυκεία*; those of gorgons and furies, a hideous kind, *γοργονεία*. The comic mask had the mouth less open than the tragic, and a ludicrous aspect, while the latter had an opposite character, in the features and open mouth. Ultimately there was a mask appropriated to each particular character, and there were even masks so contrived, that the profile on one side exhibited chagrin, on the other serenity, or whatever was the passion required. The actor, therefore, presented the side of the mask best suited to the passage under recitation. The necessity of augmenting the vocal powers of the performer, on account of the size of the theatres, suggested, says Burney \*, metallic masks, upon the principle of speaking trumpets.

The *chorus* was taken from the original performers before actors were added. The duty of the former was confined to dancing, and singing verses allusive to the subject, or laudatory of exploits and virtues. Burney says that the ancient dramatic writers had a kind of melody different from the declamation of the actors, and for the songs of the chorus; of which the one might be compared to modern recitative, the other to chanting in the Romish church. † The word *chorus* (*χορος*) signified only a band of singers, not a company of dancers; for *στροφή* meant simply a strain, in which there was a change of measure *ad libitum*, and *αντιστροφή* the counter-strain, the chorus never dancing at all ‡; and the Greek dancing, or *orchesis*, though it sometimes had the modern sense, also signified gesture or theatrical action, and graceful motion; and not only the chorus, but the principal characters, were, it is said, continually

\* Music. i. 153.

† Id. 157.

‡ See the *Prometheus* of *Æschylus*, 8vo. 1821, p. 22. not. 128.

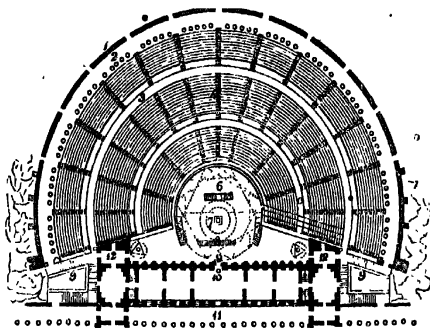
gesticulating as long as they were upon the stage. In the latter drama, according to Lucian, a single dancer, or mime, was able to express all the incidents and sentiments of a whole tragedy or epic poem by dumb show, suited to the recitation of the performers. Indeed, it is said that dancing and music were more particularly cultivated by the Greeks than the rest of the ancients; and, according to Theophrastus and others, a flute-player, named Andron, a native of Sicily, accompanied his tunes with harmonious movements of the body.

Stationary theatres are said to have been erected in the 75th Olympiad (480 B. C.). Mr. Donaldson says, that simplicity and absence of ornament indicate those of the most remote era. In the situations and form the Greeks consulted acoustics. They observed, says Al-borzi, that sound moved in circles, like water when a stone is thrown into it, and that it was reverberated by woody valleys, or places confined within walls. For this purpose, they generally scooped out the slope of a hill. Under any circumstances, the site chosen was in a part of the city most favourable to the transmission of sound—if possible, near the Stadium, Hippodrome, Odeon, Agora, and Gymnasium; because the porticoes adjoining these edifices afforded shelter to the audience from bad weather. The only theatres known upon a plain, are those of Mantinea, Megalopolis, and Arabi-Hissars, probably Alibanda. These cities do not take date before the time of Epaminondus. That of Miletus is built of stone, and is apparently Roman.

That of Argos is different from others, because it had two wings with seats,—one on either side of the pit,—so that more spectators might have been accommodated, or the three theatres in one might have been intended for minor representations. The seats of the theatre of Bacchus, at Athens, were cut in the solid rock, and having, therefore, no staircases or vomitories under them, there were ample flights of steps at each extremity of the front. At Syracuse, two broad roads met at the theatre, possibly because they were always

lounging-places, and devoted to public meetings and harangues of the philosophers. That at Hierapolis, in Phrygia, had a bath before it, perhaps indicative of a Roman era or addition.

From there being no remains of Greek theatres with the stage part in any approach to perfection, it has been thought that this compartment was wooden and temporary. A most elaborate plan or diagram has, however, been given by Mr. Donaldson, and is here represented.



PLAN OF A GREEK THEATRE.

With this diagram before us, it is easy to explain the construction. To begin with the audience part: This (the *κοίλον*), the Roman *cavea*, answered to our boxes; the peristyle to the lobby, the seats (*kerkides*) or *cunei*, being separated by landing-places (*diazomata*), or the Roman *præcinctiones*; and the compartments were ascended by staircases, called *climakes*.

Mr. Donaldson's more detailed account will gratify the classical student.

The *κοίλον* was composed of a succession of seats, (*εδραι, καθρα, ακαι, εδωλα,*) divided into two or three

flights by διαζώματα, (the Roman *præcinctiones*,) which were species of landings that separated the flights appropriated to the different orders of citizens, according to their ranks. The seats were again subdivided into wedge-shaped compartments (called κερκίδες, *cunei*,) by staircases, (or, as some suppose, ladders,) κλιμακες. The lower seats, being the best, were occupied by the archons, magistrates, or agonothetes or judges of the game. This portion (called πρωτοβουθρον and πρωτοξύλον, and βουλευτικός, that for the youth, εφηβικός,) was not the only post of honour. There were others (προεδραι) reserved for those who had hereditary claims from ancestors who had served the state. The upper range was devoted to the inferior ranks, classed according to their tribes, and to the women. Above this upper flight was a covered portico (*tectum porticus*), which not only protected the audience from the currents of air, but also confined the sound of the voices of the actors within the circuit of the *koilon*. Under this portico were the entrances into the *koilon*.

Connected with the seats of the *koilon* is the following curious fact relative to modulating vases, called *Ηχηια*. By the properties of acoustics, if two instruments in perfect harmony be placed within the sphere of each other's power, and the chord of one be struck, the chord of the other will vibrate the note to a sensible degree. This vibration of the second instrument will, of course, extend the sound of the first to a greater distance. Acting upon this principle, which particularly suited the recitative, in which the epic and dramatic compositions were delivered, the ancients had *Echea* (vases) of earth and metal, modulated to the intervals of the different tones of the voice, placed in small cells under the seats. This contrivance extended the voice of the actor from the stage to the *koilon*. No occurrence of these vases, by remains of them, has been found; but it is said that Mr. Banks has discovered, at Scythopolis, cells which received these vases; and at Nicopolis are the ruins of two Roman theatres, where

are not only niches, apparently for this purpose, but wells sunk in the cavea, made, probably, for augmentation of the sound upon the principle of Aristotle. But, as at Tauromenium, even tearing a piece of paper gradually can be heard in any part of the theatre, *ecchea* were not always necessary. In the blocks of the peristyle were circular holes for the masts, which with the aid of transverse ropes, as beams, supported the *velarium* or awning, extended to protect the spectators from the solar rays. Chandler supposes that the Greeks sat cross-legged, in the Asiatic fashion, at the theatres; and this opinion is supported by the seats having usually a small ledge in front. At Sparta, and other places, the seats are rounded hollow, so that the forepart of the benches is a little lower than the bottom.

The *orchestra*, derived from *ορχισμαί* to dance, occupied the site of our pit. The chorus, whose number, at a very early period of the dramatic art, was limited to fifteen in tragedy, and twenty-four in comedy, during the presence of the performers in the *logeion*, stood in rows, on lines marked for them in the floor. When divided into half-choirs (*ἡμιχορία*), each of the two divisions flanked the proscenium, and joined in the dialogue, as though only one person, by means of the *coryphæus*, or leader, who stood in the centre of his respective division. The tragic chorus assumed, also, the division of three rows with five each, or five rows of three each, the former being called *κατα στοίχους*, the latter *κατα ζυγα*. In comedy, however, they were ranged in rows of four each; and thus, during the absence of the performers from the stage (*scene*), they went through their recitations, accompanied by the pipes.

In the central part of the orchestra was placed the *thymele* (identified by various authors with the Roman *pulpitum*), so named from the altar on which were offered the sacrifices to Dionysius, and around which were placed the tripods, crowns, and other prizes, to

excite the emulation of the competitors. From the thymele there were steps, which led on to the logeion. The use of these steps is not ascertained.

The *scene* (Σκηνή) was devoted especially to the principal performers. It may be classed in three parts; the *scène*, the *hyposcène*, and *parascène*.

The *scène* was a wall, the elevation of which rose to the level of the tectum porticus, and in width equalled double the diameter of the orchestra. The spaces between the ends of the scenes and the bounding wall, and flanking the *logeion* or *proscenium*, appear to have been occupied by low walls, having lateral entrances (εἰσιδοί) in it, to the stages which were supposed to lead from the city and the country. The *οψίς*, or decoration of the scene, was divided into three distinct classes, the tragic, comic, and satiric. The first was the fixed decoration; and as the action was always supposed to take place in peristyles, or outside the palace in the open air, it was enriched with three orders of columns. Connected with these orders were three doors, the centre one, called by the Greeks βασιλειον, and by the Romans *valvæ regiae*, was often situated in a hemicycle, and decorated with a magnificence suitable to the palace, to which it afforded access; and attached to this was a circular altar, sacred to Apollo *Agyieus*\*, having a table with the consecrated cakes and sweetmeats thereon. Through the middle door the principal personage only, called the πρωταγωνιστής, was allowed to enter on the stage. The doors to the right and left, called the hospitalia, presented the elevation of a private dwelling. Through the one to the right the δευτεραγωνιστής, or second actor, entered; while that to the left was appropriated to the humbler characters of the piece, called τριταγωνισται, and represented a ruined temple or prison, or a mere opening, or cavern. *Painted* scenes (others say of *tapestry* work) were introduced as decorations to the comic or satiric

\*. So called, from presiding over the streets and ways. The altar, called *Αγυιαις*, was in the shape of a column, with the summit pointed.

dramatic pieces, and triangular slips (περιακτοί) were attached to the side entrances, by turning which the messengers and travellers were introduced upon the stage, as coming from the country, port, or city. Sometimes, by means of machines, sea and river gods appeared from behind the *periacti*. To represent occurrences within a building, εξωστρα and εισκυκλημα, elevated galleries, or balconies, were attached to the front of the scene, on which the representation of such scenes was seen by the audience. Not unfrequently a grand complication of machinery gradually descended with the divinities of Olympus, and produced a catastrophe to the piece; hence the proverb, Θεος απο μηχανης. And, at other times, Perseus, Mercury, Iris, and other divinities rose from the stage, borne through the air by chariots or clouds, suspended by cords. The machines consisted of a beacon (φρυκτωριον), a house with two stories (δυστεγία), a sky-platform for the gods (θεολογειον), the crane (γερανός), the machine for thunder (βροντειον), for lightning (κεραυνοσκοπειον), for the descent of deities (μηχανη), embroidered pictures (καταβληματα), and ropes (αναπесματα), for the appearance of any sudden apparition. The κλισιον, or *clisium*, the editors of the *Encyclopédie Méthodique* make a house near the entrance of the scene, i. e. on the right of the theatre. Through the gate of this, they say, passed triumphal cars, &c.—*real* ones; for at Taormino ruts appear in that part of the rock which answered to the site of the *clisium*. But Vitruvius\* shows that the *clisium*, called by Pollux δυστεγία, was the house erected at the back of the stage (as at Herculaneum and Pompeii), whence old women and pandars used to look down and peep, and the lateral entrances the *hospitaliæ*.†

The *hyposcene* was the stage, on which the principal performers, or scenici, alone recited; and to this there was an access from the *thymele* by stairs, called κλισιακτηρες.

\* L. v. c. 8.

† L. v. c. 7.

The *hyposcene* was composed of the *λογειον* and *proscene*, the elevation of which, towards the audience, was adorned with enrichments of columns, niches, and statues. At the general assemblies of citizens on public affairs, the orators occupied the *λογειον* (*stage*), in most theatres, of wood, but sometimes of marble. Under it, as with us, were the various *machines* employed to produce thunder, and other sounds, and from it was drawn up, not let down, the *curtain* (*aulæum*, *αυλαϊς*), which, between the acts, concealed the scene and stage, the attention of the spectators being then occupied by the dancers on the *thymele*; a custom still retained in the ballets at the opera.

The *parascene* was the enclosure behind, and on each side of the *scene*, appropriated to the convenience of the actors when retired from the stage, and the magazines, which contained what are called the properties; and to them were attached porticoes, in which the choragists arranged the procession of the chorus. The *parascene*, in fact, consisted of the buildings behind and on the sides of the stage, which buildings had several stories and apartments, besides five grand entrances, three in front, and two on the right and left. To the attached porticoes the audience retired during storms; and shrubberies were attached to them.

A modern theatre will easily give an idea of that of the Greeks. The pit may represent the *orchestra* with its several compartments of the *conistra* (applied to no specific purpose), *climakteres*, *thymele*, and *logeion*. Next to this was the stage, very narrow: where are now the stage-doors, were grand archways, and instead of a drop-scene, a handsome house, with three entrances in the front, pilasters and windows. At Pompeii between the stage and the *cavea* or orchestra, as now the pit, are sunk pews, apparently for the musicians: among the Romans, the *thymele* was changed into the *pulpitum*, where their singers and dancers were placed.

The *odea* were theatres of later times, purposely

adapted to musical performances, rehearsals, and recitation of new pieces. Sometimes the archons used it for tribunals and public distributions of corn. The interior of that of Pericles at Athens was adorned with columns, provided with seats; and the roof, made of the masts and yards of the captured Persian ships, was finished by a cone, in the form of a royal tent.

Adjoining to the theatre was often situated the STADIUM.

Denon mentions a hippodrome near the palace of Medinet Abou at Thebes; and Nestor in Homer describes the meta of the cursus in the plains before Troy. The origin is severally ascribed to Hercules, Pelops, and Cœnomaus, king of Elis. Berenger\* gives the following account of the Greek chariot races, of which the *stadium* was the course. The latter consisted of two parts: the first, or barrier, resembled in form the prow of a ship. Here were the stands for the horses and chariots, and here they were matched and prepared for the course. The next partition was the spot (*δρομος*) in which the races were to be run. At the end of it stood a pillar, the goal, round which the candidates were to turn. Beyond this, a figure of the god Taraxippus (some writers made it a round altar) was placed to frighten the horses. The spectators were placed on each side of the course, the most advantageous stations (presumed to have been those at the two ends) being reserved for the *agonothetæ*, or judges, and other distinguished persons; those on the sides for the people. The horses were prevented from starting irregularly by a transverse rope. About the middle of the prow (curved end) was an altar, upon which was a brazen eagle, with outstretched wings. This eagle was dedicated to Jupiter, and by mechanical contrivances could be made apparently to fly, when the president thought fit. At the entrance was likewise a brazen dolphin, consecrated to Neptune, as the creator of the horse,

\* Horsemanship, i. 53.

which would sink into the ground. The simultaneous action of the eagle and dolphin was the signal for removing the rope, and start of the horses, which were placed by lot. Several *studii* yet exist, all (but that of Laodicea, which is circular at both ends) having the form of a staple or elongated horse-shoe. The *dromos*, or course, was a flat open area, universally, it is said, of the length of 600 Greek feet. It was surrounded by an embankment, upon which were rows of seats, like those of theatres; but Colonel Leake mentions one which had mere earthen banks and no stone seats. That of Messene, more modern, was surrounded by a colonnade, which was double at the upper end. At Epidaurus a staircase is perceptible on either side, but they are not opposite to each other; and on the north side a subterraneous passage, about six feet wide, led into the arena, which was about seven feet broad. At Ephesus, Chandler and Clarke saw an arch, presumed to be one of the avenues for spectators. At Laodicea the stadium was converted by Nicostratus, born A. C. 79 or 82, into a Roman amphitheatre.

The stadium was one compartment of *gymnasia*, public edifices, which are said by Lucian and Cicero to have originated with the Lacedæmonians, whom the Athenians copied. Gymnastics, says Plutarch, were studied by the ancients on account of their obvious use in war. The denomination of *gymnasium* was derived from the nudity of the combatants; and it was also called *palæstra*, from the wrestling there practised, and *thermæ* by the Romans, from the annexation of baths. Burette divides a *gymnasium* into twelve compartments. 1. Exterior porticoes, where philosophers and literati gave their public lessons, disputed, and read their works. 2. The *ephebeum*, where the youth assembled early in the morning to learn the exercises in private. 3. The *corycæum*, or *apodyterium*, or *gymnasterion*, where they left their clothes for bathing or practising. 4. The *œothesium*, *alipterion*, or *unctuarium*, in which they were anointed with oil before bathing, the exercises,

&c. 5. The *palæstra*, properly so called, where the exercises took place. 6. The *sphæisterium*, where they played at ball. 7. Large unpaved allies between the porticoes and outward wall. 8. *Xysta*, porticoes for use during winter and bad weather. 9. Other *xysta*, uncovered and unpaved alleys for summer use, sometimes planted with trees. 10. Baths composed of many rooms. 11. The *stadium* sanded, of which before. 12. The *grammateion*, or repository of the athletic archives. — Vitruvius gives an ample account of the construction and form of gymnasiums; and there are remains of one at Ephesus, as presumed by Chandler, engraved in the Ionian antiquities.\*

The combatants for prizes in the games (of whatever gymnastic kind) were generically denominated *athletæ*, from *αθλεω* to wrestle. The exercises, as mentioned by Homer, seem to have existed before the Trojan war; but the *profession* was not distinct but a short time antecedent to Plato's era. They practised under a master of the *palæstra* for ten consecutive months, and were trained by a diet, consisting at first only of dry figs, nuts, and soft cheese, but afterwards of beef, pork, seasoned with annise; and heavy unleavened bread, kneaded with soft cheese, called *καλάριον*. They ate these viands rather roasted than boiled, and this dry regimen is what authors have called *ξηροφαγία*. They were enormous feeders and great sleepers, but very temperate in regard to wine and women. They contended in a state of nudity, having been first anointed either with oil alone, or a pomade (*ceroma*) made of that, wax, and dust, by servants called *aliptæ*, or unctores. During the operation they swelled their muscles and drew in their breath: after unction they often rolled themselves in the dirt of the *palæstra*, or covered themselves with sand and dust, or were so powdered by others, in a place called the *κονιστρα*, or *konisterion*. After the combat they were again rubbed, anointed, and taken to the bath for renovation. This process was called *αποθεραπεία*.

\* Pl. 39.

When candidates for the public games, and they could not be so without an unblemished character, they took an oath that they had practised their ten months, and would observe the laws of the combat, and good order. The *agonothetæ* enrolled their names, and at the opening of the games a herald proclaimed them. They were paired by lot; and if an odd one remained, he was called *εφεδρος*, and obliged to take up the conqueror. If there was foul play in the combat, officers called *Mastigophori* struck them with their rods. The prizes consisted of slaves, mules, oxen, tripods and vases, silver cups, clothes, arms, and silver money in the games, called *δεματικούς*, or *αργυρίας αγωνας*; and of crowns of leaves (*wild olive*, the Olympic; *pine*, the *Isthmian*; *parsley*, the *Nemean*; *laurel*, at first oak, in the *Pythian*) in those called *στεφανίτας*. Pindar and others, however, prove that, in the Olympic games, golden crowns were distributed. These crowns were laid out upon tripods, tables, and basins, as appears from many coins. The *agonotheta* distributed the prizes, and a herald crowned the victor, or he crowned himself, as appears by many monuments, where Hercules is so doing. A palm branch was also given to him, which he carried in his right hand. This was besides the second prize; and such branches appear upon coins allusive to the games, as well as placed in a vase. As soon as he had received the crown and palms, and was clothed in a flowered robe, a herald, preceded by a trumpet, paraded him round the *stadium*, and proclaimed his name and country. The spectators shouted acclamations, threw flowers at him, and made him little presents of buckles, girdles, and sometimes money.

Upon his return home he made his public entry, invested with his trophies, and riding in a quadriga, not through the gate, but a breach in the wall, and preceded by compatriots, who carried torches, and followed by a numerous suite. Festivities at the public expence (at Olympia), or that of individuals, relatives, or friends, closed the ceremony. The conquerors of distinction

made feasts in return, and fulfilled their vows to the gods for success, by offering statues or other valuables to the temples.

Nor was success a prize of empty honour. They enjoyed a pension for life—precedency at the public games—exemption from taxes and civil offices—registration in the public archives—inscriptions, statues, and even apotheoses. One of these statues is, or was, at the Villa Albani: it is of black marble; and the athlete is represented as holding a bottle of oil, to anoint himself for the combat.

The gymnastics practised are summed up in this verse of the Anthologia\*:—

Ἄλμα, ποδωκεῖν, δίσκον ἀκοντα, πάλην·

i. e. *leaping, running, the disk, javeline, and wrestling*. He who was victorious in these five was called a *Pentathlos*, in wrestling and boxing united, a *Pancratiast*; in boxing, with and without the *cestus*, ἀγωνιστής. So popular were these exercises, that there were established at Olympia prizes for infant athletes, who excelled in boxing, running, and wrestling; but the pentathlon and pancratiun were prohibited.

The officers of these establishments were the *gymnasiarch*, or chief superintendent, who had under him the *gymnast*, who had care of the health of the combatants: the *pædotriba*, who taught the mechanical exercises; and *aliptræ* and *satraliptæ*, servants who rubbed in the ointments. Count Caylus† and Winckelman‡ have engraved a *gymnasiarch* on duty. He holds a staff, and wears only a very large tunic, furnished with large sleeves, plaited over the arms, and confined by a girdle. A Parian inscription§ mentions a female *gymnasiarch*; and count Caylus|| shows that, at Cyzicus at least, girls were instructed in horse-racing.

*Hippodromes*, distinct from *stadia*, occur in Greece,

\* L. i. c. i. Ep. 8.  
§ Spon. Misc. 335.

† Pl. 37.  
|| ii. 210.

‡ Monum. 197, 198.

as at the Bœotian Thebes. Colonel Leake says that the usual length of them is two stadia; but the term was applied to *agoræ*.

*Acropoles, Temples, Theatres, and Stadia*, being the chief, often only, remains of Greek public buildings, others shall be arranged in alphabetical order.

*Agora*, or market, whence the Roman *Forum*. The market was under the control of *agaronomēs* (*agora* and *nemein*), to distribute. They preserved the police of the market, assessed the prices of the provisions, corn excepted, witnessed bargains between buyers and sellers, and examined the weights and measures. They received a fee, or toll (*αγορας τελος*), in kind, of the vendor, as appears from Aristophanes.\* The *agora* was near the port in maritime towns; in inland, in the centre. Chandler says that it was built with colonnades, and quotes Vitruvius for the contiguity to it of the arsenals, public treasury, prison, and similar buildings. Alberti† adds, that the Greek forum was square, with very large and double piazzas all round, and promenades upon the roofs. Not far from Mesaloggion is an ancient city: nearly in the centre of it is a flat oblong space upon the rock, on which are some beautiful foundations highly preserved, and several square bases, supposed to have been parts of pilasters or pillars supporting a portico. Near it is a semicircular foundation of only ten feet diameter, supposed to be a cistern for rain water, there being no spring near it. Not far off is a large reservoir, probably built for this purpose, or for a granary. It is a quadrilateral chamber, cut down perpendicularly into the rock. Across it are four parallel walls, each having three apertures, or gateways, of unequal dimensions, of a pyramidal form, terminating in an acute angle; a fashion to be seen at Mycenæ, Tiryns, and some Grecian cities in Italy. The intermediate space appears to have been roofed by long flat stones. This, Mr. Dodwell says, must have been an agora. At Pharæ, in the time of

\* *Acarn.* Cl. i. sc. 4.

† *L.* cxxvi.

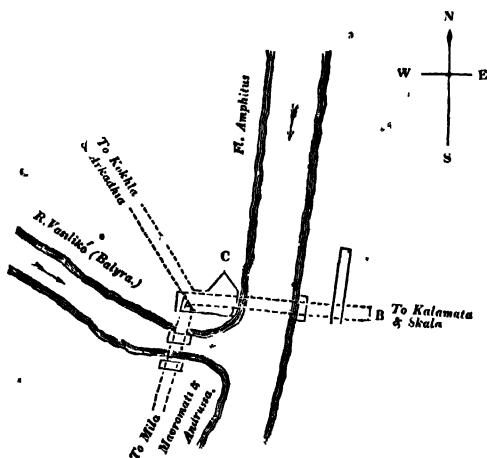
Pausanias, was a spacious agora of the ancient fashion, containing a bearded *Hermes Agoræus* in marble, of no great size, of square figure, without a pedestal, which was oracular; and a fountain called *Hama*, which, as well as the fish contained in it, were sacred to the same deity. Near the statue there were thirty quadrangular stones, to each of which was assigned the name of a deity, according to a most ancient practice of the Greeks. The agora of Corinth abounded with statues, temples, fountains, baths, &c. That of Elisa was called the Hippodrome, because it served for the exercise of horses, and had several *stoa* intersected with streets.

*Aqueducts.*—Herodotus mentions these; but those of the Roman kind were unknown to the Greeks till after the subjugation of their country. But at Tyche, in Syracuse, were subterraneous aqueducts for conveying water from street to street, and from house to house. Each of these had little wells bored like a cannon, and the channels were in many places carried over each other to the height of three ranges, without any perforation above the surface of the rock. These may have been of Greek construction.

*BATHS.*—Homer mentions them as annexed to Greek houses, and the hot kind (*λοστρα τε θερμα*) as an effeminacy of the Phæacians. It appears from Athenæus that the latter usage did not become general till about the first century of our era. Cold baths terminated the gymnastic exercises; and Theocritus informs us, that, at Lacedæmon, boys and girls (from their masculine education) bathed together. Of course, the splendid baths now found in Greece are of the Roman era.

*BRIDGES.*—Greece being a country where there are no large rivers, and the others torrent streams dry during summer, bridges are rare. At Mycenæ was one, not arched, but formed of projecting stones: indeed, to cross a mere chasm, it was not unusual to pitch two large stones so as to meet at top, and form an acute angle like the letter A, raise abutments to keep them in posi-

tion, and then form a roadway across. Over the Cephissus is a small bridge, composed of two blocks of marble, and hence called *Διομαρμύρα*. At the Cessus of Strabo, now probably Sienna, are three ancient bridges consisting each of a single arch. In the plain of Kalabuta is one of six arches. At the *Maurozumeno* of Leake, or *Mauramatiu* of Dodwell, the *Messene* of Epaminondas, is a triangular bridge for crossing two rivers, — the *Balyra* and *Amphetus*.



The paucity of bridges may be explained by the following circumstance:—Across the Kaltzanes is a rustic substitute, not uncommon in Arcadia. A large branch of an impending plane tree, which grows on the bank, forms the centre and the whole support of the bridge. From this branch to the other bank are laid large logs, and over them branches and boughs, and on the top of all, earth, and sometimes stones.

*Canals.* — A canal for draining an inundated plain near Palæopoli is supposed by Mr. Dodwell to have

given birth to the fable of Hercules and the Augean stable ; the stable being the plain, and the foss the labour. Alexander attempted to cut a navigable canal to join the bays of Smyrna and Ephesus, but relinquished it when he came to the solid rock. There are remains.

*Caves* and *caverns* were annexed to temples and other buildings, and had wells and steps leading to them. We find them also used for citadels, early habitations, votive niches, nymphæa, &c., and some were divided into chambers.

*Cisterns*, for *tanks* or *granaries*, are very common in Acropolis. Colonel Leake mentions several at Mycenæ, built of rough stones, and lined with plaster : at Prasiæ, some cut in the rock and plastered ; hewn in the rock at the Acro-Corinthus for rain water ; and at Patra others bottle-shaped, and constructed of tiles.

*Cothon*, *harbour*, *port*. — By the word *cothon* is meant an artificial harbour, in the shape of an amphitheatre ; and one, so shaped, large enough to receive the whole British navy, occurs at the Syrian Laodicea. They occur of Roman construction at Algiers and Temondfrise, in Africa ; and at Demass (Thapsus) part of the cothon is built in frames (like the walls of Flemsan) with a composition made up of pebbles and mortar. Colonel Leake observes, that a ridge, which separated the lagoon from the sea, and a long sandy beach, were not favourable to those artificial moles, or cothons, or basins, customary among the Greeks.

According to authors \*, harbours were either at the mouth of a river, or in a creek of the sea, under some high promontory. The former were merely for the reception of ships ; the latter were made artificially for defence, like breakwaters, by piers in a semicircular form, called *χηλαι*, *ακραι του λιμενος*, or *ακται*. To the two ends of these piers were affixed great chains or booms, and they were sometimes guarded with tarred pales ; whence harbours were sometimes termed *κλεισταις*. Strong towers, garrisoned, were placed on the piers, and

\* Robinson, 406.

not far off was a light-house or pharos. The *στομα* was the mouth or entry between the piers. In the inmost harbour, *μυχος*, ships were frequently left loose. It was partitioned into compartments by walls, called *ὄρμαι*, *ναυλοχω*, and collectively *ναυσταθμος*; and here were also the docks, *νεωσκοι*, *επιστια*, *νεωρια*, &c. The adjacent places were filled with inns, houses of promiscuous resort, temples, and altars. Homer describes the protection of a fleet, near the shore, by a semicircular wall, or mound, from one point to another; and it is remarkable, that at Porskewit, near Chepstow, is exactly such a protection, presumed to be thrown up by Ostorius during his wars with the Silures. Towards, or within the sea, were fixed strong stakes, before which the vessels of burden were placed to protect those within. At times, not of immediate danger, exploratory vessels (*προφυλακιδες*) were sent out and soldiers, called *πυρσουροι* or *πυρσουριδαι*, from *πυρσος*, a torch, gave notice by that of the approach of the enemy's vessels. When the fortifications were sufficiently strong, the ships were drawn on shore: in winter, or when they did not fear attack, the soldiers pitched their tents around the ships; at other times the latter only lay at anchor or moorings, ready to meet the enemy.

At Athens, Argos, Corinth, and other Greek cities, long walls connected the port with the city. At Larymna, in Bœotia, the port was formed by projecting piers, which left room only for the entrance of ships; and at the Chersonesus, a mole, described by Strabo, was constructed of immense stones for walls, filled up in the middle with cement and rubbish, and protected by two strong towers. At Athens, there were three ports:—1. The *Piræus*, in the form of a bladder, surrounded by three small like-shaped inlets. It had at its entrance two round towers, and in the middle a pharos. Upon the peninsula, Le Roy saw remains of the walls and towers, built by Themistocles, of a temple, and, as presumed, of an *agora* (market), and

tumuli. 2. The *Munychian* port, separated from the Piræus: it is an obtuse oval. Traces of foundations are discoverable, and in the rock small niches, formed, perhaps, for statues of divinities. 3. The *Phalerum* is exceedingly small, fit only for boats. A mole across the mouth left only a narrow entrance. There still exist vestiges of the long walls and paved causeway which connected the Piræus with the city, distant about four and a half miles.

Temples of Venus, says Mr. Dodwell, were generally erected in ports or promontories near the sea, from the clement which gave birth to the goddess; and from the remains of a colossal statue, found at Port Raphlo, it has been presumed, by Chandler, that such and other statues, in similar situations, were intended for sea-marks, or for holding lights. As to

Docks;—these were towns, important enough to exercise a maritime commerce, but too far from the sea for a harbour. In this case, they selected the nearest and most convenient spot, and built houses about it; and this hamlet became the *navale* of the other town. In like manner, Corinth, situated in the Peloponnesian isthmus, had two *navalia*, viz. *Decheum* and *Cenchrea*. Sometimes a town was built in a place where there was not a sufficient harbour for ships, because it required, through increase of trade, vessels of a larger construction. Then, although the town was already a kind of harbour, another larger and deeper was annexed, though at some distance, which often formed a colony as flourishing as the town itself.\*

Some openings, formed in the rock of the lesser harbour, in Syracuse, are supposed to have been the docks of the ancient galleys. Colonel Leake† thus describes the mode of fortifying maritime towns, from the most ancient and best specimen, that of Ægina:—“An oval port, sheltered by two ancient moles, which leave only a narrow passage in the middle, between the

\* Enc. Méthodique.

† Morea, ii. 436, 437.

remains of two towers, which stood on either side of the entrance. Pursuing the same direction, we find another oval port, twice as long as the former. Its entrance is protected in the same manner, by ancient walls or moles, fifteen or twenty feet thick, which, though now in many places below the surface of the water, still shelter these two little bays, and furnish a commodious protection to the small vessels which navigate the gulf. Between the two harbours, there appears to have been a succession of small basins, separated from the sea by a wall, and communicating with the two harbours. On the northern side of the promontory, there was an open harbour, or roadstead, protected to the north by a breakwater, on which there appears to have stood a wall, which formed a prolongation of the walls of the land front of the city. There is no more remarkable example in Greece of the labour and expense bestowed by the ancients in forming and protecting their artificial harbours."

The walls of the city are still traced through their whole extent on the land side. They were about ten feet thick, and constructed with towers at intervals, not always equal. There appear to have been three principal entrances, of which, that near the middle of the land front, leading to the Panhellenium, was constructed apparently like the chief gate of the city of Platæa, was a retired wall, between two round towers. To the southward, the town walls abutted upon the mole of the great harbour, which formed a continuation of the city wall, in the same manner as that wall was just stated to have terminated in the northern roadstead. This appears, indeed, to have been the usual mode amongst the Greeks of fortifying their maritime towns, as instanced at Athens, Eleusis, and many other places. The ports were those *κλειστοὶ λιμένες* placed within the walls of the towns, and to be closed by a chain.

*Demos.* — Greece was inhabited by villages before there were towns; but those belonging to the Athenian state were termed *δημοί*. Pausanias and Livy show

that they had their particular temples, as modern villages have churches. The indications of a *demos*, says Mr. Dodwell, are extensive foundations, tiles, and small stones.

*Fountains* were deemed to have their particular nymphs or deities, and were hence held in high estimation. Pausanias mentions an oracular fountain, near the sea, at Patra. It remains nearly as he describes, and, being re-dedicated to St. Andrew, is still a sacred well. The present enclosure and appendages seem to be modern. The fountain was that where, to know the fate of the sick, they suspended a mirror with a thread: the back of the mirror touched the water, and the polished side floated above. From the appearances, they determined the presage. At Cos, now Stancho, is a cave, formed with great art, partly in the solid rock, and partly with stone and stucco, on the side of the mountain. Within this cave is an arched passage, at the bottom of which the water flows, through a narrow channel, as clear as crystal. It connects it with a lofty vaulted chamber, cut in the rock, and shaped like a bee-hive, with an aperture at the top, admitting air and light from the surface of the mountain. It may be as old as the age of Hippocrates, from whom it is named. Thus, Dr. Clarke, who also saw at *Chæroneia*, now *Caprana*, a beautiful ancient fountain of five mouths, supplied by means of a small aqueduct.

*Lions.* — It is not uncommon in Greece to see colossal lions. One, exceedingly fine, which had formerly stood before the gate of the Piræus at Athens, still adorns the entry of the Arsenal at Venice. Mr. Dodwell mentions one at Cape Zoster as a remain indicative of a considerable *demos*; from their frequent occurrence in Attica, he supposes that they had an allegorical meaning. Chandler thinks, that in couchant postures they were, perhaps, placed in graves, and it is clear that the figure of the lion was an emblem of force and

courage, and was frequently placed upon sepulchres where any battle had been fought, as at the pass of Thermopylæ, and on the tombs of the Thebans, in the plain of Chæronea. Over gates, they might, as Mr. Hughes thinks, designate a watch or guard. Nevertheless, Herodotus mentions the "stone lion," named the Leonidas, at Thermopylæ.

*Phryctorion.* See *Watchtower*.

*Pnix.*—The name and use of this place at Athens is mentioned by Thucydides; but the etymon (whether from *πινυω* or *πυκνος*) is far from clear. The same author makes it an *ecclesia*; and it was clearly the place where the Athenian parliaments were held. Its remains are tolerably perfect. It consists of a circle or obtuse oval; upon one side is a recess, called *βημα*, or hustings, ascended by steps; in the centre a square elevation, like a table-tomb. From hence the orators harangued. The Pnix was entered by a flight of descending steps upon one side. It was erected near the port of the Piræus, for this reason, ascribed by Plutarch, viz. that the Greeks believed a maritime power inclinable to a democracy; whereas persons employed in agriculture would be less uneasy under an oligarchy.

*Prison.*—That in which Socrates is presumed to have been confined is a cavern, which adjoins the Areopagus and the Pnix. But the most extraordinary specimen is the "Ear of Dionysius" at Syracuse. It formed part of the quarries of the Neapolis. Swinburne says, that "it is eighteen feet wide, and fifty-eight high, and runs into the heart of the hill in the form of a capital S. The sides are chiseled, and the roof cover, gradually narrowing almost to a Gothic arch. Along this point runs a groove or channel, which served, as is supposed, to collect the sounds that rose from a speaker below, and convey them to a pipe; in a small double cell above, where they were heard with the greatest distinctness; but this hearing-place, having been too much opened and altered, has lost its virtue. There is a recess, like a chamber, about the middle of

the cave, and the bottom of the grotto is rounded off. It is impossible, after an attentive survey of this place, to entertain a doubt of its having been constructed intentionally for a prison and a listening-place. Rings are cut out of the angles of the walls, where, no doubt, the more obnoxious criminals were fastened. The tearing of a piece of paper made as great a noise as a smart blow of a cudgel on a board would have done. A gun gave a report like thunder."

*Prytaneum.* — Some senators, called *prytanes*, were chosen out of particular tribes every month, to superintend certain matters of police and government. They had the final jurisdiction in processes instituted in the lower courts, and the chief administration of justice, the distribution of provisions, the general police of the state, and particular one of the town, the declaration of war, the conclusion and publication of peace, and the nomination of tutors and curators. The *prytaneum*, where they assembled, answered to our guild and town halls, and was a vast edifice, which had a great dining-hall, called *δολος* by Pausanias, adorned with statues of gods and eminent men. Here they had their public meals, to which it was deemed a great honour to be invited; and received ambassadors. Magazines were annexed, for they distributed provisions to the poor, and supported the orphans of men who had died in the public service. The *prytaneum* of Cyzicus was, next to that of Athens, the most magnificent. It contained a quantity of porticoes, in which were placed tables for the public festivals. At Acradina, Denon mentions a prodigious quantity of marbles and large columns, as the only remains of the *prytaneum*.

*Roads.* — The paved way between Athens and Eleusis is composed of rough stones of moderate dimensions, like the streets of modern cities; but, in that from Mantinea to Orchomenos, of large stones. Large square blocks, not in regular polygons, as was the Roman practice, occur at Stymphalos. At Cleonæ, now Kourtiæ, the road to Nemea was rock, curiously hewn into

a variety of channels; and at Tempe, by the side of the Peneus, the highway is cut in the rock, with resting-places for the feet of the horses, to prevent their slipping into the river. The breadth occupied by the carriages of the ancients was five feet, and this road was thirteen, so that there was room for two carriages to pass.

*Towns.* — Greek towns in general consisted of poor and mean houses; irregular streets; lanes like alleys; and shops small and unglazed, like those of our butchers and brokers. The narrowness of the lanes is, however, more valued than light ways, by residents in hot climates, on account of the intensity of the solar rays. Professor Müller says, that the towns of the Peloponnese were for the most part irregularly built; whereas the Ionians had early learnt to lay out their streets in straight lines, a custom which Hippodamus of Miletus succeeded in spreading over the rest of Greece. It was probably this architect who, in the year 445 B. C., laid out the plan of Thurii in exact squares, with streets at right angles; and the same who, in his old age, built the city of Rhodes (467 B. C.) with such symmetry, that, to the astonished ancients, it seemed like one house.\*

*Street.* — At Pæstum, all the temples stand in a line, and border a street, which, running from gate to gate, divided the city into two parts nearly equal. There appears to have been a theatre opposite; so that the street was probably lined with public buildings, and thus had a grand appearance. At Tyche in Syracuse, there are, in the middle of the streets holes, where the beasts, which drew the carriages, placed their feet. Denon frequently speaks of the narrow and winding streets of Syracuse, one being cut to the depth of five or six feet in the solid rock.

*Stoa*, a term of Diodorus, was, says Mr. Wilkins, never used by him in any other sense than to open por-

\* Dorians, ii. 272.

ticoes with columns. Stuart has misapplied the denomination to another building at Athens.

*Subterranean fabrics. Catacombs.*—At Suadea, near Antioch, the ancient Seleucia, are catacombs ornamented with pilasters, cornices, and mouldings. These may be Grecian; but the city of catacombs at Syracuse appertains to the Roman era.

*Caves, caverns.*—Strabo and Plutarch both mention altars in the temples, upon, which altars, called *πυραιθια*, were kept fires constantly burning. These fires were lit by invisible means. At Ægina, on the flat surface, is seen a round cavity of thirteen inches' diameter, and two or three deep, within which is a square hole pervading the whole block of a column. Another cavern adjoins it, the roof of which is distinguished by a small circular aperture, which is cut down perpendicularly, and admits the day. The diameter of the perforated frustum above mentioned, is a little larger than that of the circular aperture of the cave; and was, perhaps, placed over it, and might have served for a pedestal or an altar; but it was most probably a *puraitheion*, or a fire-altar. Altars of this kind appear to have been used in all the temples, and to have been lighted by invisible means. Nothing more was necessary than to pour oil upon them, which would instantly burst into a flame, upon coming in contact with the fire, which was kept in readiness under the perforation.\*

*Caves for subterranean passages.*—Under the same temple is an excavated passage, which certainly proceeds farther than the fallen stones permit us to explore.

*Caves for citadels.*—At Moghi, in Asia Minor (says Mr. Walpole), an enormous cavern is shut up in front by a wall, with battlements and towers, and seems once to have served for a sort of citadel to the town.

*Caves for towns.*—Virgil says that, before Troy and Pergamean citadels existed, men dwelt in the bottoms of valleys, in grottoes or caves. An ancient town of these

\* Dodwell.

caverns still exists at Ispica, in Sicily, and is minutely described by Denon.

*Caves with labyrinths.*—These caves, says sir William Gell, with labyrinths constructed in them, occur near Nauplia, and were probably intended for retreats from danger. The labyrinth of Crete is a subterraneous excavation, full of irregular passages, terminating in caverns.

*Caves with niches for votive offerings.*—At a cave near Kashar, on Mount Parness (Parnassus), says Mr. Dodwell, are niches for votive offerings, and an inscription. On the perpendicular face in the rock, which rises near the cave, several ancient apertures have been cut by way of steps from the bottom to the top. They shelve downwards, in order to assist the approaches of the feet and hands. The same kind of ancient stationary ladders are formed in perpendicular rocks at Leontium and at Syracuse in Sicily. The cave is probably sacred to Pan and the Nymphs.

*Caverns, use unknown.*—Denon saw at Selinus (now *Peleri*, in Sicily), in the upper part of the streets, small caverns, without roofs, but formed of large stones, resting horizontally on pillars, and, on the surface, little columns of an interior decoration. At Syracuse he saw another, with a small iron ring inserted in the centre of the roof for a lamp, and a seat running along both sides.

*Caverns, adyta of Isis.*—At *Tithorea*, now *Velitza*, Dr. Clarke saw a cavern, in the precipice of Mount Parnassus, rising above the ruins of the city, which, he thinks, may be the adytum sacred, to Isis, so obscurely spoken of by Pausanias.

*Caves, as Grottoes, temples of the Nymphs, common.*

*Caverns oracular.*—That of Virgil's Sibyl is well known. At the Hieron of Trophonius (now *Lebadæa*), a rocky recess, is a chamber of stone, hewn in the solid rock. Immediately below it is the *stoma*, or sacred aperture of the adytum. It is small and low, shaped like an oven; and this Pausanias affirms to have been

the form of the artificial masonry adapted to its mouth. It is, in fact, barely capacious enough to admit the passage of a man's body.

*Niches cut in rocks.*—At Mysus, Chandler mentions many small square niches, cut in rocks, with steps to ascend to the top. He supposes that these were designed for the worship of the watery divinities, to receive propitiatory offerings, or votive tablets, the memorials of real and imaginary perils and escapes, the tribute of their suppliants relieved, &c.

*Subterranean passages and apartments,* annexed to citadels.—At the Acropolis of Amyclæ (now Sclavo-Chorio), Mr. Dodwell was informed that there was a subterranean passage, of artificial fabrication, penetrating through the whole of the mountain. At the castle of Derial, in Persia, is a subterranean passage (says sir R. K. Porter) from the castle to the river, communicating probably with other works, which might bar ingress of the valley. At one of the temples of Pæstum is a small aperture, like the mouth of a well, which was probably intended to give air and light to a long and intricate subterraneous gallery, which extended to the sea on one side, and on the other communicated with the temple. In the interior of the citadel of Rhyniassa, supposed Elatria, is a very fine subterranean apartment, to which we are conducted by a narrow passage, almost twenty yards in length. This remain is nearly square, being nine feet by nine six inches. Its ceiling is arched, and as well as the walls, covered with stucco as smooth as polished marble, divided elegantly into compartments, with rich cornices and mouldings.

*Tholos*, in Vitruvius, means a dome or cupola in general; and when it was part of a temple, the presents to the gods were there suspended. The term, however, is applied to small edifices of honour, such as the choric monument of Lysicrates. Sir William Gell describes another tholos as Epidaurus. It seems to have been a circle of about twenty feet in diameter. On some of the blocks are inscriptions relating to the cures effected by

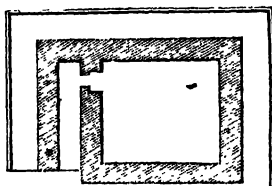
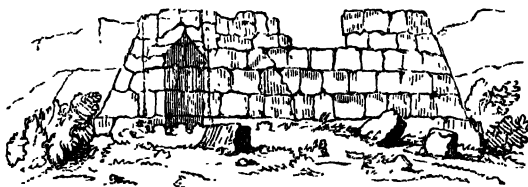
*Æsculapius.* He also thinks that a tholos was annexed to the house of Ulysses at Ithaca.

*Towers.*—*Monopergia*, or single-tower forts, to guard passages over rivers, occur at Nauplia and Rhakes; and Procopius mentions such structures. At Ithaca one was used to guard the well.

*Treasuries.*—These, in the most ancient times, were of the form of beehives, and that of Atreus, at Mycenæ, is the first and best specimen. Brass nails at regular intervals seem to have fastened plates of metal; and from this circumstance the brazen chamber, in which Danaë was confined, is presumed to have derived its name. Homer in the *Odyssey*, and Plutarch in *Philopœmen*, mention the use of them as prisons. The treasury of Minyas at Orchomenos is of similar construction. Vaults of this construction are to be found among the ruins of the ancient Sicilian cities, and the great magazines of corn at Agrigentum are of exactly the same shape, but are cut in the rock. Mr. Walpole says that the Greek thesauri were places formed or excavated under temples, like the Roman *favissæ*, cells or granaries. Every body knows the searches made in barrows and tombs for treasures. It is presumed that the Mycenæan edifice was also a tomb as well as a treasury, and perhaps a temple also; for all these subterraneous chambers, in Greece, Italy, and Sardinia, were, no doubt, the primitive cryptæ or sepulchres of great persons in the most remote era.

*Watchtowers* are mentioned in scripture; and Chapdler says that at Tmolus in Lydia there was on the summit a watch tower, erected by the Persians, of which perhaps the ruin is still extant in a *hexedra*, or building with six sides or seats of white marble. The editors of the new edition of Stuart's Athens say that the watch-towers were termed by the Greeks *φευκτωρια*, from *φρυκτωρ*, a torch or beacon, as in them guards were placed to observe and announce the approach of the enemy, or any other circumstance, and to communicate notice of the events to the nearest station by fires. By day the ascent

of the smoke conveyed the intelligence, and by night the glare of the flame. Authorities of this ancient practice ascend to the Trojan era ; and the account of an existing specimen near Argos is as follows :—The possession of this tower, pyramidal externally, and square within,



commands from a great distance a view of the defile, that led from the territories of Tegea and Mantinea to that of Argos. The peculiarity of the plan renders the lower chamber most dangerous of approach and difficult of access to assailants. It appears most probable that there was one, or perhaps more than one, other story above. This is one of the few ancient examples to be found of a wall, whose external face diverges from the perpendicular so rapidly towards the foundation. A tower near the grove of Æsculapius, and part of the citadel of Chæronea, have a similar peculiarity of construction. Mr. Dodwell, speaking of Phanari, says, that its signification of *lantern*, in modern Greek, has something traditional in its denomination. There are several places in Greece which are designated by the same appellation, all of which are placed in very lofty.

and commanding situations. Fire signals, before mentioned, were, in fact, the *telegraphs* of the day, and termed *Φρυκτοί*, or *φρυκτωρία*, or *ανυγγοί*, by the Greeks, and *specula* by the Latins. Near Lessa sir William Gell saw the foundations of a pyramid, not the situation of that on the road between Argos and Tiryns, mentioned by Pausanias.

*Wells.*—The “*Encyclopædia of Antiquities*” states that Danaus is said to have first brought wells from Egypt into Greece. There are found wells bored through rocks of immense depth; some so shallow, as to require only a bucket with a rope of twisted herbs. The mouth was sometimes protected by a massive marble cylinder, or two pieces cramped together: but, according to remains, the contour of ancient wells was of *one* entire stone, in some instances at least formed like round altars. The Greeks, but not the Romans, ornamented the brims of their wells with sculpture, and that very fine, and these brims were but twenty inches high. Some wells were not deep, and pulleys were not used, only buckets with ropes of twisted herbs, and sometimes the water was raised by a huge lever, great stones being a counterpoise to the other end. Other wells had an arch over them, and a descent by steps. Mr. Fuller says, in his “*Travels in Turkey*,” that the sight of the women in files, returning from the wells with their vases on their heads, reminded him of very common figures in sculpture; and Dr. Clarke adds, that the old fountain of Syros, at which the nymphs of the island assembled in the early ages, exists in its original state, and is the same rendezvous as it was formerly, whether of love or gallantry, or of gossiping or tale-telling. The young women, as on the ancient marbles, come singing from them with vases on their heads, and are met by their lovers, who ease them of their burdens and join them in the chorus. They also dance round the wells the ancient *callichorus*, accompanied with songs in honour of Ceres. From these customs, it has happened that many reliques of fine pottery are found in Greek wells.

## CHAP. II.

## SCULPTURE.

IN sculpture the Greeks have never been rivalled. The Athenians seem to have been the first nation in the world that discovered, as it were, the virgin idea of beautiful form, and to have worshipped it with the fervour of a first love. The cause is thus explained:—The power of judging of art, like all the other mental powers, must be improved just as it is exercised, and it will be exercised just in proportion as the essays of art in all departments are multiplied. This faculty, from its original constitution, has the capacity of ever conceiving something more excellent than has been already attained; and therefore, as the powers of execution are improved, the perceptions of taste are refined in the same degree; and thus it was, that, in the natural progress of the fine arts at Athens, that bloom of national taste evolved itself, which distinguished the age of Sophocles and the Parthenon.\* To this may be added, with regard to the human form, that the gymnastic exercises rendered perfect examples common.

The earliest sculptor mentioned in Greek history is Dædalus, a contemporary of Theseus, 968 B. C. Pausanias mentions nine of his works as then remaining in Greece, "rude and uncomely in aspect," he says, "but yet having an air of divinity." Among these nine was a naked Hercules in wood. This statue was so celebrated, that Flaxman thinks we may have copies of it in gems, coins, or small bronzes. He therefore says, that in the British Museum, as well as

\* Patterson's National Character of the Athenians, 103—106.



other collections,\*are several small bronzes of a naked Hercules, whose right arm, holding a club, is raised to strike, whilst his left is extended, bearing the lion's skin



as a shield. From the style of extreme antiquity in these statues, the rude attempt at bold action, which was the peculiarity of Dædalus; the general adoption of this action in the early ages, the traits of savage nature in the face and figure, expressed with little knowledge, but strong feeling, by the narrow loins, turgid muscles of the breasts, thighs, and calves of the legs, we shall find reason to believe that they are copied from the above-mentioned statue. Pausanias also mentions a chorus in white stone, made by Dædalus for Ariadne, noticed in the eighteenth Iliad, as youths and damsels dancing hand in hand. The earliest Greek bas-reliefs and paintings represent choruses of the Graces and Hours in this manner.

Winckelmann says that Dædalus first added legs to statues, and that the earliest outlines of figures were for the most part in right lines.

Pausanias saw in the Acropolis of Athens a statue of

Minerva, made by Endæus, a disciple of Dædalus; and it is presumed that the heads of Minerva, on the early coins of Athens, were copied from this very statue, and that a whole length by Dipænis and Scyllis is a representation of it.



In these early times, the rude efforts were limited to divinities and heroes. Jupiter, Neptune, and several heroic characters have the self-same figure and action as the Hercules of Dedalus described above; the same narrow eyes, thin lips, with the corners of the mouth turned upwards, the pointed chin, narrow loins, turgid muscles, the same advancing position of the lower limbs, the right hand raised beside the head, and the left extended. Their only distinctions were, that Jupiter held the thunderbolt, Neptune the trident, and Hercules a palm-branch or bow, as may be seen in ancient small bronzes, on coins of Athens and Pæstum, and on the most ancient painted vases.

The female divinities were clothed in draperies, divided into few and perpendicular folds; their attitudes advancing, like those of male figures. The hair of both male and female statues or paintings of this period is

arranged with great care, collected in a club behind; sometimes entirely curled, in the same manner as practised by the native Americans and Australians. Dædalus and Endæus formed their statues in wood; but metal was also used for various purposes of sculpture.

Such are Flaxman's characteristics of the *first* period of Greek art. The *second* era is thus distinguished.

Dipænis, and Scyllis the Cretan, were celebrated for their marble statues, about the year 776 B. C. Their works still retain much of the ancient manner, in the advancing position of the legs, the drawing of the figure, and the perpendicular folds of drapery disposed in zig-zag edges. Elaborate finishing was soon after carried to excess: undulating locks, and spiral knots of hair like shells, as well as the drapery, were wrought with the most elaborate care and exactness; whilst the tasteless and barbarous character of the face and limbs remained much the same as in former times. The exemplifications specified by Flaxman are colossal busts of Hercules and Apollo in the British Museum, probably done by Dipænis and Scyllis for the Sicyonians; very ancient statues of Minerva and a priest of Bacchus, lately in the Villa Albani, published by Winckelmann in his "Monumenti" and "Art," and specimens of extreme finishing in early Greek pateras and bronzes.

Catagraphy, or the oblique representations of images, to give different views of the face, looking up, or down, or backwards, and the representation of veins, and folds and plaits in garments, seem not to have been attempted before the time of Phidias. The approach to that era is marked by a better drawing of the figure, more careful attention to its parts, more precision and variety of attitude, less elaborate curling and dressing the hair, and the form of the figure better shown through the drapery.

Winckelmann characterises this ancient school by energetic designs, but harsh and void of grace, and too great strength in expression. Flaxman says that the figures were stiff rather than dignified, their forms either

meagre or turgid, and the folds of the drapery parallel, poor, and resembling geometrical lines rather than the simple but ever-varying appearances of nature.

Phidias flourished about 490 years B. C. His superior genius, assisted by a knowledge of painting, which he practised previous to sculpture, gave a grandeur to his compositions, a grace to his groups, a softness to flesh, and a flow to draperies unknown to his predecessors. The imitators of Phidias were Alcamenes, Critias, Nestocles, and Hegias; twenty years after, Agelades, Callon, Polyclitus, Phragmon, Gorgias, Lacon, Myron, Scopas, Pythagoras, and Perelius. Phidias had the direction of the sculpture to be seen at the Parthenon and the Theseum at Athens; and as the styles of different hands are sufficiently evident in the alto and basso rilievos, so there might, perhaps, says Flaxman, be no great difficulty in tracing some of the artists by resemblance to others of their known works.

The combats of the Centaurs and Lapithæ, among the Elgin marbles at the British Museum, enable us to behold the actual works of Phidias and his coadjutors. It is remarkable that, in the metopes alluded to, not only is the workmanship dissimilar, but the size of the figures, the largest being of the worst execution.\* On these fourteen metopes are almost as many degrees of merit; but, if Phidias touched them in any instances, the thirteenth, however mutilated, was one. Of other instances of the work of Phidias, Mr. Hope's Minerva is supposed to be a copy; and in the Pio-Clementine Museum is an engraving of his Amazon, called Euknemon, from her beautiful leg. Winckelmann calls the style of Phidias the sublime, and makes the change from hardness and saliency of the parts into flowing outlines; but, the change being only partial, a hardness yet remains. His exemplification is the group of Niobe and her daughters. The fine style, he says, commences with Praxiteles, and is of the date of

\* Burrow's Elgin Marbles, i. 254.

Alexander the Great and his successors. In this best style, every thing angular is suppressed, an improvement ascribed to Lysippus.

Flaxman goes into the following details ; and these will afford a satisfactory elucidation of the particular characteristics of the several eras. He begins with the earliest attempts at imitation of parts and proportion.

The Dædalean school shows an attitude perpendicularly upright, the legs nearly closed together, the arms fixed to the sides, the head rather large, the hair straight, the eyes full, the nose flattish, the lower part of the face and chin projecting : a little fulness for each breast, and a slight indication of the line formed on each side of the thorax by the terminations of the ribs, are the only parts distinguished in front of the body. The shoulders and arms are meagre, and have little variety in the outline ; the thighs are full, so are the calves of the legs ; the joints are scarcely noticed ; their proportions are rather dwarfish, seldom exceeding six heads and a half in height.

The improvements in the human figure, presumed to be not earlier than a century before Phidias, are those which are chiefly found on painted vases, or basso-relievos of Bacchanalian subjects, or processions of divinities. These improvements consisted of a greater variety and violence of action, a bolder distinction of the knees, elbows, edge of the pelvis, the ribs, and the ankles ; the muscles turgid and tendinous, proper to continual and vigorous exertion.

Sculpture of the time of Phidias and his immediate successors, through the study of the human form upon anatomical principles, presents the portrait of it in the full developement of its powers and perfection of its beauty by gymnastic exercises, at the same time that its anatomical forms\* are decided

\* Minute and technical particulars may be seen in Flaxman's Lectures p. 111 et seq.

with the same simplicity, elegance, and comprehensive greatness, which are equally admired in the work of the artist and the writings of Hippocrates. As a natural and certain consequence of the sculptor's intelligence being formed on the physician's instructions, the system was the simplest and boldest division of parts, and breadth of masses, that imitation of nature permits.

There is reason to believe, from the ancient sculpture itself, that those groups and statues, which are pre-eminent in the display of anatomical skill, were not executed until after the age of Alexander the Great, when Hieropholis and Erasistratus had enlarged the bounds of anatomical science, by numerous dissections in the school of Alexandria. In the ages after Phidias, there is a greater particularity of anatomical finish and detail; but, at the same time, there is a choicc selection of those simple geometrical forms, which, in bone, muscle, and tendon, are strongest, most efficient, and elegant, whether the subject be masculine or feminine, strong or delicate. The anatomical distinctions in the forms of the gods were results of the study of Homer, whose works were collected and arranged when Hipparchus, who lived a few years before the birth of Phidias, had formed a public library for the Athenians. Homer supplied subjects for poets, painters, and sculptors, and his descriptions fixed the persons and attributes of their gods.

Phidias, continues Flaxman, seems to have been the first in this reformation. Minerva, who had before appeared harsh and elderly, was by him rendered beautiful. The change is visible from the subjoined portraits of her, — the first the ancient, the second the improved.

Her gently aquiline nose, uniform features, and downward look, which distinguish her from the goddess Roma, who looks forward as mistress of the world, sufficiently appropriate her. Her usual symbol is the

owl ; but the helmet, long hair, and ægis on the breast, are enough to denote her figures.



The Jupiter of Phidias was awful as when his nod shook the poles, but benignant as when, according to Homer's description, he smiled on his daughter Venus. The anatomical forms, selected from powerful nature, presented a massy breast and shoulders, projecting muscles above the hip-bone, the limb strong without heaviness, and the whole figure mighty. Ovid\* says that his is *a royal figure* ("Jovis est regalis imago"). He is almost always represented with a full face, enthroned ; and his portrait is distinguished by a peculiar serenity of look, (for if there be a sternness, the head belongs to Pluto or Serapis, the same deity,) and by the hair, which descends along the temples, entirely covers his ears, and is longer than that of the other gods. This was done to make it resemble a lion's mane ; for Homer had that of an angry lion in view, when he represented Jupiter as shaking Olympus by the waving hair and moving eye-brows. He is commonly known by the

thunderbolt and eagle. Local or peculiar Jupiters have other individual distinctions: as Ammon, a ram's horns. Ovid says\* that the portrait of every god had its own peculiar features, *i. e.* that the faces were always modelled or copied from one and the same standard; and Flaxman adds, that the visages of Jupiter's progeny were settled by a scale of gradation, — “they were more sublime near him, and less perfect by removal.”

Of the sons of Jupiter, Bacchus was the next divinity whose form was sublimated and moulded by Praxiteles. Ovid† describes him as a very handsome boy, with a girl's face, “*virgineum caput*”; and Winckelman says that his statues present the second kind of ideal youth, borrowed from mixed features of both sexes. His limbs are delicate and rounded, and his hips salient like those of women, because, according to Apollodorus, he was brought up in the habit of a girl. As conqueror of the Indies, through his having made a vow to let his beard grow during the expedition, he wears that appendage, and is always draped to the feet. In this figure, the ancient sculptors combined the ideal form of virile age with youth; and exhibited their skill in the execution of the curls and hair. His common attributes are vine leaves, an ivy crown, the thyrsus, a drinking-horn, and car drawn by tigers.

APOLLO is very like his brother Bacchus, but his features are less effeminate. All statues of him are not, however, elevated to the finest representation of the male form ever known—that of the Belvidere Apollo. His figures are known by being beardless; the hair tied upon the head, like that of girls (the *corymbus*); the laurel crown, lyre, serpent of medicine, bow, quiver, tripod, cicada, cock, olive, hawk, and swan.

CUPID.—At first, a youth with large eagle wings; latterly, a more infantine form, with shorter wings.

CYCLOPS.—Two natural eyes; a third, in the middle of the forehead; the figure almost naked.

\* *Sua quemque Deorum — inscribit facies. — Ovid. Metam. l. vi. c. 74.*

† *Metam. l. iii. de Nautis, &c., and l. iv. de Cercete, &c.*

**ESCUAPIUS.**—His face and head resemble that of his father Jupiter. The Greek shoes (*crepidæ cretatæ*), and the staff or club surrounded by a serpent, discriminate him. He is often accompanied by *Hygeia*, or *Minerva Medica* (known by a serpent drinking out of a patera), or the little gold *Telesphorus*, wrapped up in a long cloak.

**Fawns** have the ends of the mouth drawn up ; pointed ears ; sometimes nascent horns ; small tails, like those of horses ; often warts on the face and neck.

**HERCULES** is known by the bull-formed hair and neck. The celebrated Farnesian statue (*Hercules human*), *i. e.* with nerves and muscles, the work of Glycon of Athens, is the hero reposing after his painful journey to the Hesperides, of which he holds the apples in his hand. *Hercules deified*, *i. e.* without nerves or muscles, because his body is made for enjoyment only, appears in the Belvidere Torso. Figures also occur of him, with one arm above the head, and seated, to indicate repose ; as *Rusticus*, the same as *Silvanus*, with a fawn's ears ; as *Bibas*, with a distaff and spindle, &c.

**HARPOCRATES.**—A finger on the mouth, and single lock of hair on the forehead. Græco-Egyptian ; not known before the time of Alexander.

**MERCURY.**—His face is a portrait of Alcibiades : he is known by the winged feet, to show that he was made, not for walking, but flying ; the caduceus, &c.

**MARS** is naked, marching, and head helmeted.

**MORPHEUS.**—A bearded old man, with butterflies', sometimes eagles' wings upon the shoulders, and birds' wings on the head, or *vice versâ*. He is draped, and holds a horn, from whence he pours out dreams, and nocturnal illusions ; or asleep, with his head resting on his left arm. Without the butterfly wings, his head is that of the Roman god *Termes*.

**NEPTUNE** is distinguished from Pluto by nudity ; and, as the breast was consecrated to him, that part is generally conspicuous. A trident, dolphin, or acros-

tolium, are his symbols ; and he often occurs with one foot upon a rock, to show that he is king of the sea, and master of the earth. A diadem or fillet distinguishes him ; the crown of reeds being limited to Tritons and subaltern marine deities.

PAN was first represented as a satyr, afterward as a man ; his proper portrait is an ivied head, of serious aspect, with a thick beard like goats' hair. Pointed ears occur, at least in some instances. The griffin and pipe are his symbols. Authentic monuments of him are very rare. •

OCEANUS.—Lobsters' claws on the head.

PLUTO.—Figures of him, except in the rape of Proserpine, are uncommon. He commonly wears a sort of helmet, or Phrygian bonnet, and is symbolised by a *two-pronged* fork, and the dog Cerberus. As Serapis-Pluto, he carries the modius ; and the head, both of Serapis and him, is buried 'n hair.

SATURN (another rare deity) is generally distinguished by the head covered with a veil ; sometimes only a diadem, and a sickle or harpè, *i. e.* sword with a hook at the end of it.

TRITONS are characterised by horses' legs, fishes' tails, drinking-horns (on account of their passion for wine), crabs' claws on the temples, crowns of rushes, and, sometimes, eye-brows formed of fish-scales, which pass over the cheeks and nose, and also surround the chin. Sometimes they are mounted on sea-monsters or goats, holding tridents, flutes, oars or helms, or sounding horns ; and sometimes have a fish-skin in the form of a chlamys.

VULCAN.—He is known by a cap, egg-formed, and pointed, or with a crooked beak, like the Phrygian ; a hammer, tongs, and forge ; sometimes a thunderbolt.

The goddesses or figures with faces uniformly alike are,—

AMAZONS.—One breast naked, the hair dishevelled, the *pelta* or crescent-formed shield, and *bipennis* or double-bladed axe.

**BACCHANALS.**—The faun smile, formed by raising the angles of the mouth ; the Greek comic character drapery, a tiger's skin, the vassaris or training gown, and the crocota, a transparent silk garment ; girt with vine or ivy leaves, carrying thyrsuses, or striking cymbals.

**CERES.**—Veil thrown back upon her head ; crown of wheat ears and leaves, or an elevated diadem, or a low turban or tower, or the modius, a symbol of fertility, and mystic chest of the Eleusinian mysteries upon her head ; she carries a cornucopia, or wheat ears and poppies, or torches, or a cup, vase or patera ; her car drawn by winged serpents or elephants.

**CYBELE.**—Almost always crowned with towers ; seated on a throne, on a car drawn by lions, and holding a tambourine.

**DIANA.**—A figure more like a girl's, than that of the other goddesses ; a naked knee and short tunick ; generally running, with a bow, quiver, and dog ; her hair tied upon the top of her head, and right shoulder uncovered. Particular Dianas have various forms.

**GORGONS.**—Medusa's head is very beautiful, because it was accounted an amulet against danger ; upon the Etruscan vases, Gorgons have the body, feet, and hands of a woman, with wings, large hideous heads, great mouths wide open, staring teeth, and lolling tongues, from the intention of striking terror.

**JUNO.**—Large eyes, fine hair, imperious mouth, diadem like the beaver of a helmet, and the attribute of a peacock.

**MINERVA.**—Of her before.

**PROSERPINE.**—A crown of wheat ears, and distinguished from her mother, by hair fastened upon the top of her head, like that of a virgin.

**PSYCHE.**—Mostly embracing Cupid ; her usual symbol, a butterfly or its wings.

**VENUS** has the eyes small, with a cast, and the lower eyelid raised. There seem to be only five Venuses accurately denominated. 1. The Venus rising from the

bath, in the attitude of the medi, or half-draped, holding a mirror, &c., or with the clothes on a vase. 2. The *Anadyomene*, wringing her hair, standing in a car. 3. The draped Venuses, who have always two girdles, the *tænia* and *zona* (or famous cestus), placed above the hips. 4. *Venus Victrix* or *Genitrix*, with the spear and shield; presumed from dressing herself in the arms of Mars. 6. The *Venus Callipyge*, which is offensively indelicate. Her attributes are very numerous, as dove, flower, helm of a ship, sceptre, apple, &c.

Lessing, who has much studied the Venuses, does not allow that the Medicean statue was the famous chef-d'œuvre of Praxiteles, described by Lucian; and Flaxman thinks it but a deteriorated variety of that "most admired female statue of all antiquity, whose beauty is as perfect as it is elevated, and as innocent as perfect."\* The Cnidian Venus, of which there is an excellent copy in Mr. Hope's collection, is a more tall figure, and with more expression in the countenance, than the Medicean, and there cannot be opinions concerning the most famous statues of the goddess of Beauty, different from those of Pliny†, viz. that the Venus of Alcamenes‡ was celebrated (*præclara*), but the Cnidian "a wonder of perfection" which people of all nations came to see.

VICTORY, who has various attributes, much resembles Diana, but may be easily known, by the wings upon her shoulders, and the distinction of her robe, of which the lower folds, as if agitated by the wind, take nearly the form of a displayed fan.

Such are the figures, which are copies from a standard model. To give a catalogue of all statues known and appropriated, would be impossible, in a limited work. The ideal style is only a selection from such perfect natural examples, as excites in our minds a conception of the supernatural; and the cause of the excellence of the Greeks was this;—the genial sun-

\* P. 230.

† xxxvi. 5.

‡ Engraved, Flaxman, pl. 21.

shine and mild breezes rendered light clothing requisite, and in some cases rejected the incumbrance wholly. This exposure of the body and limbs naturally led to the contemplation of form in the human figure, and comparison of beauty in the parts, between one subject and another.\* That this principle was acted upon, is plain; for when the Agrigentines employed Zeuxis to paint a picture for the temple of Juno Lacinia, they allowed him to inspect their virgins naked, select five, and form the whole figure out of the best shaped limbs which he found in each.† The perfection of virile and female beauty is seen in the Apollo and Venus, and of expression in the Hercules and Laocoön. The two last form the *ne plus ultra* of expression; for any further attempt would make of them dissected or skinned figures.

In judging critically of Greek statues, the following rules are to be remembered:—1. That divine figures have no nerves or veins, on account of their perpetual youth; muscular statues being those of heroes. 2. That the profile of the face is on a right line with the nose, or slightly indented. 3. That the eyes are sunk deeper than in nature. 4. That the lips are closed, teeth being visible only in fauns and satyrs. 5. That the forehead is low; and that there are no statues with hair in indented angles, or without hair on the temples. 6. That the bosoms of goddesses, because either virgins, or always capable of becoming so, have no visible nipples, and resemble the breasts of girls. 7. That the knees and legs are without visible articulations: and, 8. That the figures of Bacchus, hermaphrodites, and eunuchs, have the round hips of a woman.

The subjects of all statues and bas-reliefs are taken from mythology, and the poets, more especially Homer: where *κνημίδες*, and the Phrygian bonnet, appear on the figures, it is presumed that the subject is taken from the Iliad. Statues of metallic materials are of remote

\* Flaxman, 201. 207.

† Plin. xxxv. 9.

antiquity : casts in these have been even found in the ruins of Babylon.

In bas-reliefs, the figures have very little saliency, and are detached from one another. The frieze of the Parthenon is the finest specimen, and the casts are numerous.

The painting of the Greeks, as seen upon their vases, conforms to their sculpture, and its general character may be understood from the following passage in Flaxman : —

“ The characteristics of Grecian composition in the best ages, are simplicity and distinctness, in all the examples of painting and sculpture which have come down to us. Where the story does not require much action, it is told by gentle movements ; and the figures, whether grouped or single, have a sufficient portion of plain back-ground left about them, to show the general lines, with the forms of the limbs and draperies perfectly intelligible. Where complication and force of action may be required, it is done with a grace of concatenation which adds continuity to the act, without causing it to be less distinct. And in such acts as are all agitation and violence, the force of striking, the rush of flight, the agony of dying, and the prostration of the dead, in which union of action is enforced by repetition, and difference of situation by contrast,—still the same distinctness is preserved.”

The origin of painting is uncertain, by the confession of Pliny, who derides the boast of the Egyptians, that they first invented it.\* But the question of painting is not so important as to the invention of an attempt, which occurs among savages and schoolboys, but as to the time when the human figure was delineated with any kind of skill. The tombs of Thebes are the earliest specimens extant ; and, the colours excepted, they assimilate, in stiffness and conventional attitudes, the bas-reliefs. The difference between the ancient and modern

pictures is, that, in the former, there is no shading; the practice of the ancients, as to light and shade, being only that of contrasting colours \*,—a practice in which they have been exceedingly successful. It is still to be seen in the illuminations of manuscripts, and the hackneyed coloured prints of saints, brought from Italy, and hawked about England by itinerant foreigners. To judge by the frescoes of Pompeii, it may, however, be justly said, that the colours are most glaring and gorgeous, without shade or relief, and yet are without tawdriness. As to pattern, opposite and corresponding compartments may have variations of colour and members; yet the differences are so overcome by the general effect, that no discord is apparent. The ornaments and decorations are generally in excess, and yet appear to be unimprovable by simplicity. Grecian columns are seen, full as slender and tall as the Gothic, and yet excellently harmonising with the lightness of the whole picture; for there is nothing heavy in any of them. Wherever receding objects are represented, attention is paid to perspective, however imperfect. But on the Greek vases, as on the bas-reliefs, the pattern allows, where the subject is historical, no picturesque addition or effect of back-ground. The field is occupied by the figure and acts of man. In the Pompeian paintings, the colours are all in excellent contrast, none of them melting into each other, and painted upon dark back-grounds. The Greeks preferred sculpture to paintings; for amongst them, Pausanias saw very few; but the opposite practice obtained among the Romans.

Of the extreme beauty of the Greek painting we can only judge by the vases, and a certainty that they could not have been inferior to the sculpture, as to the representation of objects. From the commonness of duplicates, it has justly been presumed that the patterns were formed upon the plaster by means of outlines upon paper, which outlines were marked by small holes. This paper being laid upon the surface of the vase,

finely powdered charcoal, rubbed over the pattern, traced the form of the figure by falling through the holes. A series of other papers, having the places cut out where any particular colour was to be applied, was then used, in the same manner as thin plates of brass now are for colouring silks and satins. That such was the practice cannot be doubted, because there is a coincidence in the style and drawing, which could not ensue, were the pictures executed *ad libitum* by different masters. The paintings of the monochromatick vases were executed either by the parts for the picture being left untouched through the cover of the pattern, and the other exposed parts coated with black paint; or cavities cut out for the figures were filled with the black or white colour, and the rest of the vase possessed the natural hue of the clay, after being baked. The latter process was the more ancient; and vases of this description are decorated with black, or very rarely with white, figures and ornaments upon a red ground.

Vases are divided into two kinds, the monochromatick and polychromes.

Monochrome vases are those where the figures are only of one colour. Pliny\* says, that the first invention was a shadow, with the outlines of a man; the second, single colours, called monochromatick: that linear invention was ascribed to Philocles the Egyptian, or Cleanthes of Corinth; and that Ardries the Corinthian, and Telephanes the Secyonian, first exercised the art without any colour, only putting lines within. He also adds, that the ancients painted the monochromes with cinnabar; and once with Ephesian minium, afterwards neglected, because it cost much trouble to prepare it; sometimes, instead of red, white was used,—a process which Aristotle terms λευκογραφειν. Winckelman observes, that painters used at first but one single tint, either black or red, or the white just alluded to. Count Caylus mentions one, where the figures were black, the nerves being picked out white

\* xxxiii. 7. xxxv. 3.

for effect. In some, the figures are merely outlined; in others, they are of two colours, black and dark red, the muscles of the body and plaits of the vest being represented by scratches only; those of the best era having *red* figures (the natural colour of the clay) upon a black ground, the effect being heightened at first by a rudely scratched outline, but in the best ages of the arts carefully delineated, and often tinted with other colours. But those fine specimens of execution have rarely paintings of equal interest with those of an earlier era. In sum, Dr. Clarke says, that the style of painting upon these vases varies so considerably, that almost every branch of the art known to the Greeks may be observed upon them, from the monochromatick of Pliny, where the figures were destined only for shadows, by a black colour touched upon a red outline, down to the period in which more elaborate designs in the monochromatick style were represented by an outline of the liveliest vermilion (used for regal robes in more than one instance) upon a perfectly white surface.

The designs of the earlier vases are historical events, the employments of man in the earliest ages, either when he was destroying the ferocious enemies which infested his native woods, or procuring by the chase the means of his subsistence. Mr. Dodwell has engraved \* one, the subject of which is a boar hunt. The subject is terminated by a bird as a mark of conclusion. This is one of the oldest kind, and its antiquity is denoted by the formality and stiffness of the figures. The vase itself is of the colour of box wood, the figures being composed of two colours, black and dark red; black upon a red ground being also the indication of the very ancient era.

The next era is that where concerns of the bath, toilet, dances, or games are represented. Indeed, Anacreon says, concerning the table vases, that the artists of his time would gratify the wishes of individuals both as to subject and cost.

*Polychrome Vases.*—Pliny says, that Cleophrastus of Corinth first taught the art of colouring; that Zeuxis painted monochromes of white only; that Apelles and the first painters used only four colours,—white, yellow, red, and black; and that Polygnotus the Pthasian, before the ninetieth Olympiad (420 B. C.), first painted women with a lucid, probably transparent, vest, like that of the Venus of Cos, and adorned their heads with various coloured mitræ. The polychrome vases are chiefly found in the isle of Agina, and are composed of all the different colours which the subject requires, and these are the scarcest of all the vases.

Grecian painting and sculpture being the most perfect productions of imitative art, it would be negligent to omit notice of the beauties of the drapery, which often accompanies the figures on these vases. They assimilate the stuff worn. In the finer and more transparent kinds, their texture, and consequently their folds, strongly resembled our calico, muslin, and are peculiar to the more elegant and delicate female character, as the nymphs, terrestrial, marine, and bacchanalian; victories, seasons, or hours, and celestial female messengers. The more transparent of these draperies leave the forms and outline of the person as perfectly intelligible, as if no covering were interposed between the eye and the object; and the existence of the veil is only understood by groups of small folds, collected in the hollows between the body and limbs, or playing in curves and undulations on the bolder parts, adding the magic of diversity to the charm of beauty.\*

The borders of foliage have a very limited range of subjects; and the winged Genii associated with botanic ornaments may personify the Genius presiding over vegetation, fertility, and reproduction.†

Ingherami supposes, that the first vegetable prototype had a symbolic meaning, but that it was so altered in succeeding ages by repeated copies, that even the representation of vegetation became almost obliterated.

\* Flaxman, 245.

† Stuart's Athens, new edit.

It appears from Vitruvius, that a Corinthian girl, who was passionately fond of vases, having died when marriageable, her nurse deposited them in a basket, brought it to her tomb, placed it on the top, and, that they might last the longer in the open air, covered them with a tile. These productions were profusely deposited within the Corinthian tombs, which, in after ages, were rifled by the Romans for their bronze and fictile treasures. Athenæus shows, that the possession of cups and vases was in ancient times extravagantly coveted.

The sculpture of gems, rings, and seals was equally excellent with that of marble, but it seems to have been of later introduction than the other arts. It is certain that engraved signets are mentioned in the book of Exodus \*; and that Pharaoh gave his ring to Joseph, Montfaucon says, to seal letters with. Herodotus † attests that every Babylonian, when the city was taken by Cyrus, wore a signet ring. Nevertheless, it is affirmed by Pliny, from Homer ‡, that they were not used by the Greeks in the era of that poet. The earliest specimens known of any signets or engraved gems are the Persepolitan or Sabæan cylinders, squares, or pyramids, which were followed by the Egyptian scarabæi, which were amulets. The Egyptians worshipped the beetle, and it was symbolic of various things. All these superstitions are very ancient, for they occur upon the sepulchres of Biban-el-Moluk, and are traced to the Indians, Hottentots, and other nations. Even Augustine, from some superstition, often compares Christ to a beetle. The Etruscans and Greeks imitated the Egyptians §; for Gosi showed Barthelemy an Etruscan cornelian of the form of a beetle, and head and head-dress of a woman in the Egyptian style. The body of the beetle served for a hold to the hand, and the base for a place of safety and facility to put the seal; some are so large as to be even four inches long. They are made of the most durable stones. The convex part is commonly worked

\* xxviii. 21. 36. xxxix. 14. 30.

‡ Iliad, l. vi. Odyssey, l. viii.

† Clio, l. i. § xcv.

§ Travels in Italy.

without much art ; and upon the base or flat side are characters not yet understood. In the end, the Greeks suppressed the body of the scarabæus, and preserved the oval form which the base presented for the body of the sculpture ; lastly, they mounted them in rings. Job\* mentions the precious onyx, or the sapphire ; and Dr. Clarke says, that signets, *without stones*, and entirely of metal, did not come into use before the time of Claudius. Montfaucon makes agates and cornelians the most common material, but he adds rubies, grenats (garnets), hyacinths, sapphires, emeralds, turquoises, topazes, berils, chalcedonies, jaspers of all colours, *gradi*, aiguemarines, lazul stones, amethysts, onyx, sardonix, aganothyx, and other stones of less value, the diamond excepted, of which he saw only one instance. Both amber and ivory were also used, and some gems had two precious stones. Others say, that all the precious stones, except the diamond (and the ruby, generally, because too precious and hard), were used ; but for intaglios (concave figures, *gemmae ectipæ*), agates, cornelians, sardonixes, and chalcedonies were preferred ; for cameos (those in relief, *gemmae sculpturæ prominente*) the different sorts of agate-onyx. The hydrophanous stones, which lose their transparency by immersion in water, and rock crystal occur, as well as other pebbles, of a colour suited to the subject, or tinged by art (as amber tinged by violet to imitate amethyst), black agate for proserpines, aiguemarine for Neptunes and Leanders, red jaspers for Marsyases, and amethyst for Bacchuses and Sileni, because it was of a vinous colour, and thought to prevent intoxication. The ancients also cut glass with the lathe ; and their pastes, as rare and valuable as their gems, often imitate the veins and various coloured shades of the original. Some stones they did not know. Dr. Clarke saw a sardonix exhibiting three distinct layers of brown and white chalcedony, upon the upper layer of which was an intaglio, representing the well-known figure of Mercury with a purse. A singular use was made of

emeralds; they were not only blended with mosaic work, but they were cut flat to reflect objects, engraved, and carried on the end of sticks to dazzle the eye. Emerald rings were found at Pompeii.\* The ancients had not the art of cutting the diamond; and, accordingly, those only occur, which had received a light polish and irregular facette by friction among sands and other pebbles in the beds of rivers.

The distinction of ancient and modern gems is founded, according to Æneas Vico, upon the different folding of the drapery, and upon the different character exhibited in the hair, ear, hands, and extremities. The attitudes and composition are not like the modern. The figures have different movements. There is also a grace and delicacy now unknown. Some gems appear, which could not have been executed without the lathe, or *tour*, the Greek *teretion*. Instances occur, where the space of the figure has been hollowed out in order to receive a bas-relief of it in gold, or else it has been covered with gold leaf. As the engravers also executed coins, the best gems are contemporary with the best medals. The heads were first worked in cameo, as those of the moderns in wax, before the intaglio was cut: and the Greeks had an art of making the letters appear white, by means of passing the gem through fire. Dr. Clarke says, when the practice of deifying princes and venerating heroes became general, portraits of men supplied the place of more ancient types; and that this custom gave birth to the cameo, not perhaps, introduced before the Roman power, and rarely found in Greece. Solon made a law prohibiting any vendor of rings from keeping models of them. Seal rings or *anuli signatorii*, had sometimes engraved, in the very matter of the ring, some sort of figure or mark peculiar to the wearer. These were figures either of their favourite ladies, or of the owners, or else of divinities, sacrifices, and sacred histories. In short, there was contained in these gems, almost the whole compass of mythology. Sometimes there are also true histories in

\* Pompeiana, l. 257.

them, battles, marriages, devices, animals, and fancies of all kinds. Pythagoras forbade the setting images of the gods in rings, for fear that, by the familiarity of them, they should grow into contempt; nevertheless, we find the heads and figures of deities, as of Jupiter, Serapis, Mercury, and others.\* Ancestors, friends, and Alexander were the occasional subjects, especially the latter; for, among the Romans at least, there was a superstitious notion that they who had the figure of the Macedonian monarch sculptured in gold or silver would prosper in all their actions.†

Areus king of Sparta bore an eagle holding a serpent in his talons; the Western Locrians, Hesperus, the evening star; Polycrates, a lyre; Seleucus, an anchor; and the Romans adopted similar devices. Clemens Alexandrinus mentions rings with charms, by which they pretended to foretell future events. Others had only a plain superficies. There were rings for presents on birthdays, and rings given as pledges for the observation of contracts. Dying people gave their seals or signet rings to their successors in token of appointment. The Greeks wore the ring upon the fourth finger of the left hand, because they supposed that some nerve reached from that finger direct to the heart.

The material used for sealing was a sort of clay named the *Creta Asiatica*, and mentioned in the book of Job.‡ Both the kinds are noted by Cicero. Job§, Aristotle, and Aristophanes allude to the practice of sealing the doors of houses, the apartments of the women, boxes, and other movables. Hence it ensues, that rings are most often found in the hands of the mothers of families. But according to ancient remains, this sort of seals was commonly made of bronze, being a mere circle, fastened to a tablet containing the owner's name. In sealing deeds, the wax was fastened

\* Montfaucon.

† Job, xxxviii. 14.

‡ Sueton. c. 50. ed. Delph. Aug.

§ Job, xli. 15.

to a thread ; and the Russians, who retain many ancient Greek practices, still use the chirograph, or signet ring, and apply it to bits of soft wax, fastened to a cord, when they would secure a door, chest, &c.\*

### CHAP. III.

#### MANNERS AND CUSTOMS OF PRIVATE LIFE. — TRADES AND MANUFACTURES. — COSTUMES.

AT cock-crowing, the inhabitants of the country, singing old songs, entered Athens with their provisions. At the same time, the shops were opened, and all the Athenians were in motion. Some repaired to their professional labours, others to the different tribunals to officiate as judges.

Among the people, as well as the army, they made two meals a day ; but persons of a certain rank were content with one, which they took, some at mid-day, the most part before sunset. But this must be understood of only one chief meal ; for Athenæus mentions *breakfast* (ακρατισμα, or διαηστισμος), *luncheon* (δειπνον), [*afternoon meal* (εσπερισμα, δειλινον), not mentioned in other writers] ; *supper* (δορπον), always the last meal, after which Aristophanes makes it time to go to bed. However, three meals only were most usual, the εσπερισμα being omitted. In the afternoon they took a nap, or played at the game of πεσσοι, αστραγαλοι, *tali*, our cockal, the tarsal bones of animals, or imitations in ivory, gold, or bronze. Homer says that the suitors of Penelope used to amuse themselves at the door of her house with this game, or with dice, κυβοι, *alea*, which were thrown out of a horn box, formed like

\* Guthrie's Dissert. on Russian Antiquities.

a tower, called *φίμος*, the Latin *fritillus*\*, and was a pure game of chance; or with *calculi*, or *catrunculi*, a sort of chess, played on a board. The men they played with, says Montfaucon, were of different colours, to distinguish the two contending parties. Each party had a king or emperor, which they never moved but upon urgent occasions; and had a certain number of men besides, which they called indifferently soldiers or thieves. This game was an image of war, at which there were attacks and combats; and he was the conqueror that could take all his adversary's men. As to the king, he could never be taken until all his men were fallen into his enemy's hands, and then he was looked upon as conquered. Every man had on the board his proper station, called by the Greeks *polis*, a city, or *chora*, which signifies a region or place. He that had but one place to move to was looked upon as conquered, and he that attacked the others was reckoned as one that made the assault upon the city or place. The king that lost all his men was said to be reduced, *ad incitas*, i. e. to a place from whence he could not move. Herodotus† makes all these games (except the *παισσοι*), Lydian inventions. According to Plutarch‡, gamblers used to shut up themselves much at home.

In the intervals of the day, especially in the morning before noon, and in the evening before supper, they walked upon the banks of the Ilissus, and round the town, to enjoy the pure air and fine prospects; but in general they went to the agora, which was the place most frequented. As the general assembly was there held, and the palace of the senate, and the tribunal of the chief archon, almost all were attracted thither by their own affairs or those of the republic. Many came there also because they had need of relaxation, and others because they wanted occupation.

Around the agora, or market, were particular places, destined for the sale of particular articles, and different

\* Casaub. in Theophrast., 168.

† Clio, l. i. s. xciv.

‡ De Exilio.

hours of the day seem to have been appropriated for the sale of different commodities. To the agora the inhabitants resorted every day, and clamorously discussed politics, family anecdotes, and the vices and follies of individuals. Sometimes a select few, whose conversations were instructive, assembled at the different porticoes in the town. These sorts of rendezvous were numerous among the Athenians; their insatiable appetite for news, the consequence of the activity of their minds and the idleness of their lives, occasioned these lounging assemblies. During war, these meetings were accompanied with violent debate.

This gossiping propensity occasioned them to be called word-makers (*λογηποιοι*), and news-makers, (*σπερμολογοι*), and these idle meetings *λεσχαι*. Thus Rous; but Müller makes the *λεσχαι* places of public resort, and says, that every community had its *λεσχη*, where old men met in winter around a blazing fire for conversation. The conversations at the barbers' shops gave birth to the proverb used by Polybius, *κουριακη λαλια*, barber's talk; but those most frequented were, in the days of Hesiod and Homer, the shops of smiths and other persons, which were without doors, and always had a fire burning. The shops were open, like those of Pompeii, and of our butchers, fishmongers, and poulterers. These meetings were, or ought to have been, in the daytime.\*

During peace, as the most part cultivated their own estates, they rode to their farms in the morning, and, after having directed the labours of their slaves, returned in the evening to the town. Sometimes they were occupied in hunting and the exercises of the gymnasium. Besides the public baths, where the people assembled in crowds, and which served for an asylum to the poor against the severities of the winter, individuals had them in their houses. The custom was become so necessary to them, that they introduced them even into their ships.†

The greater part of the houses at Athens were com-

\* Rous.

† Barthélémy.

posed of two compartments, one <sup>up</sup> stairs (διπτερος) for the women, the other below for the men, and covered with terraces. At Athens there was accounted to have been more than ten thousand of these houses. Many had a garden behind, in front a small court, and more often a kind of portico, at the bottom of which was the gate of the house, sometimes confided to the care of a eunuch. There was sometimes a figure of Mercury, to drive away thieves; sometimes a dog, that they feared much more; and almost always an altar in honour of Apollo, where the master of the house came on certain days to offer sacrifice.

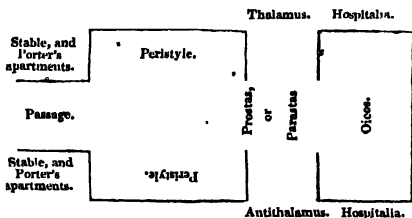
Thus Barthélémy. The earliest known inhabitants of Greece were the Cyclopes, who, Homer and Euripides say, inhabited caverns, and whom Pausanias\* makes synonymous with the Læstrigons and giants. Denon found at Ispica, in Sicily, grottoes of this ancient character, all divided into stories and chambers. He found there fragments of vases, and some rude sculptured marble, which is not singular; for, besides the gate of the lions, Pausanias mentions a head of Medusa, the work of the Cyclopes.† It appears from the ground plans, traced by Mr. Hughes, of Athenian houses, that they were very small, and had numerous semicircular seats about them. As to the tower houses of Diodorus, a good representation of them may be formed from those of the city of Bacchus before mentioned, and the pyrgos of modern Greece. It is certain that the basement story of the modern Greek houses, as those of the ancient, was occupied by stables and offices.‡ Sir William Gell says, that the house of Laertes, in the Odyssey, seems to have been precisely similar to the *metoichi* of modern Greece; and that the *oikos*, or residence of the lord, like the *pyrgo* at present, was surrounded by the *κλισίον* (*stable*) and ranges of low buildings occupied by the servants and cattle. On the outside was an orchard. There is here no great difference in plan from numerous English farm-houses.

\* Arcad. 261.

† Id. 62.  
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‡ Gell's Ithaca.

The magnificent houses, or palaces, were different ; but there are no remains. Sir William Gell has formed a plan, from Homer, of the palace of Ulysses, and Mr. Wilkins another from Vitruvius ; but it is known that, except having no atrium, there was an assimilation to Roman houses, and the analysis in the " Pompeiana " is so plain, that the following plan will render it of easy comprehension.



This outline by no means conveys an idea of the annexed rooms, and the uses of them. An explanation shall therefore be added from Mr. Wilkins and Sir William Gell.

The passage was called *Thyroræum*, and the first door *θυρα αυλεια* or *αυλειος*.\* Doors turned anciently upon large pivots in the centre, let into sockets in the lintel and threshold, so that one of the sides opened inwards, the other outwards, and Plutarch† gives the following curious reason why persons were to knock and alarm the porter, viz. lest the visiter entering unawares should surprise the mistress or daughter of the family busy or undressed, or servants under correction, or the maids quarrelling. In the Bible we find doors of fir ‡ ; with locks and bars §, and folding doors || and curtains for the door of the court¶, curtains being still, in the East, frequent substitutes for doors. Sir William Gell says that the house or palace of Ulysses had before it a paved or level platform ; and was enclosed by a great

\* Casaub. in Theophrast. 310.

‡ 1 Kings, vi. 34.

|| 1 Kings, vi. 34

† De Curiosit.

§ Nehem. iii. 3.

¶ Numb. iii. 26.

wall, called *τοιχος ερκειος*, in which were placed well-wrought folding doors. There was nevertheless a heap of manure at the gate according to the number of mules and oxen employed in the service of the palace, a mixture of grandeur and uncleanness which forms the most striking characteristic of the great houses of Greece at the present day. Dogs and pigs were also permitted to wander about the gates. It is thought that the *θριγκος* was a parapet which enclosed the terrace. In the first peristyle were the *triclinia*, or eating-rooms, in daily use; and the apartments of the domestics. This division of the house was called *gynaecitis*, and the women's chambers *τεγχοι θαλαμοι*, from being at the top of the house.\* Penelope in Homer is described as ascending and descending a staircase (*κλιμακα*) to go to her room: and in the south portico, according to Mr. Wilkins, was the *andronitis*, or men's apartments, the *cyzicene oicus* (or splendid dining-room, so named from Cyzicus, a town celebrated for magnificent buildings), and *pinacotheca*, usually rendered a picture gallery; in the eastern, the *bibliotheca* (library); in the western, the *exedra*, or places for conversation. The *thalamus* and *antithalamus* were rooms in which the matrons and their servants worked in the lanifce, embroidery, &c., and the *hospitalia*, or strangers' apartments, had sitting and sleeping rooms, and courts or passages called *mesaulæ*. Here they could live in private distinctly from the family. There was also the *parthenon*, the room for the girls, the most distant part of the house, locked and bolted; for sometimes they could not pass from one part of the house to another without leave. Some accounts say that the *oicos* contained large ample rooms, where were made the feasts, to which women were not admitted to sit at table with the men.

It was the custom of the Greeks to ornament in every manner that part of the house which was first seen by persons entering or passing; and this part

\* Rous, p. 200.

Homer calls *ἐνπία παμφανώντα*, which Hesychius defines by the parts opposite the entrance, that they ornamented for the sake of passengers.\* The arms and armour were placed in the *ἀνδρῶν* †, which some translators of Herodotus call *porticus* (or portico) and others public halls.

At the present day, the Greeks and orientals hang the walls of their chief rooms with arms. Besides this, some houses had a little court strewn with palæstric dust, and a *sphæristorium* (properly a fives-court) which they used to lend to philosophers or sophists, or persons showing their skill in arms or music.‡ The flat roofs of the private dwellings distinguished them from the public edifices.

Plutarch adds, that houses were to be light and airy, and that it was desirable to have a palm-tree before the door. He quotes Xenophon for the existence of proper repositories for arms, the furniture for religious uses, culinary utensils, and implements of husbandry.

The dwellings of the Dorians were plain and simple, the doors being only fashioned by the saw, and the ceiling by the axe; a regulation of Lycurgus, intended to limit architecture to public buildings, and prevent it from purveying to private luxury. The kings of Greece, in Homer's time, lived not only in spacious but also richly ornamented houses, the walls of which glittered with brass, silver, gold, amber, and ivory; but no such splendour was seen in the dwellings of the Heraclide princes. The palace of the two kings of Sparta was said to have been built by Aristodemus at the taking of the town: here Agesilaus lived after the manner of his ancestors, the doors being, according to Xenophon, those of the original building. Hence Leontychidas (490 B. C.) asked his host at Corinth, which city had become luxurious, on seeing the ceiling ornamented with sunk panels (*φαινωματα*), whether the trees in Corinth were naturally four-cornered?

\* Theophrast. 18. 330.

† Clio, l. s. 33.

‡ Theophrast. 17. 172; ed Casaub.

The houses at Sparta, however, notwithstanding their rude structure, were probably spacious and commodious: in front, there was generally a court-yard, separated by a wall from the street, and containing a large portico. Among the Spartans and Æolians it was the custom not to knock, but to call, at the gate.\* Xenophon and Livy describe the houses of Sparta as lofty, and built more solidly than those of Athens.

The furniture and internal arrangement of these splendid Greek establishments are thus described by Barthélemy:—"A long and narrow passage led directly to the women's lodgings. Entrance to it was prohibited to all of the male sex, except the relatives and persons introduced by the husband. After having crossed a grass-plot surrounded by three piazzas, we arrived at a sufficiently large portion of the house, where was Lysistrata, to whom Dinias presented me."

"We found her occupied with two Sicilian doves, and a little Maltese dog that was playing around her. Lysistrata passed for one of the prettiest women of Athens, and sought to support that reputation by the elegance of her dress. Her black hair, perfumed with essences, fell in large curls over her shoulders; she wore golden ear-rings, pearl necklaces and bracelets, and rings of precious stones on her fingers. She was also painted rose colour and white, and wore a robe of the latter colour, the common costume of women of distinction.

"Through the real or pretended superiority of foreign goods, the seats were of Thessalian manufacture, the bed mattresses Corinthian, and the pillows Carthaginian. In the men's department, which had also a grass-plot in the middle, surrounded with four porticoes, the walls were coated with stucco, and wainscotted with joiners' work. These porticoes served for communication with many other rooms, most of them elegantly decorated. Gold and ivory set off the furniture, the ceilings and walls were ornamented with

\* Müller's Dorians, ii. 272.

paintings; the screens and tapestry, made at Babylon, represented Persians with their training robes, vultures, and other birds."

To this catalogue may be added, from Theophrastus, as luxuries especially valued, two sorts of the monkey tribe, the *πίθηκος*, and the *tityri* (an Indian species, according to Pliny, and according to Pausanias a large ape, or ourang-outang), dice or tali made of the bones of the antelope or gazelle, Thyriacan ampullæ, of the round form, and Lacedæmonian crooked walking-sticks. To these, Aristophanes adds Cyprian *carpets* (as we should call them), of purple, adorned with plates or nails of gold, or embroidered. In short, Homer says\* that the house of Nestor was furnished with beds, tables, garments, carpets, and stores of new wine; and the ivory, gold, and amber displayed in that of Menelaus sufficient to strike amazement.

Beds perfumed with aloes†, and bedsteads of gold, silver‡, ivory§, and iron||, and bed coverings of tapestry¶, are mentioned in Scripture; and Herodotus\*\* explains the use of the precious metals, by mentioning "couches embossed with gold and silver;" and Plutarch††, quoting a Greek comedian, speaks of bedsteads adorned with silver and gold; beds‡‡ puffed with feathers, and women's pillows that sunk under the weight of their heads. The paintings upon the Hamilton vases confirm these accounts. Plutarch also mentions beds at Lacedæmon stuffed with reeds mixed in winter with a soft and downy thistle.§§ The poor slept upon mats|||, or beds filled with leaves and boughs.¶¶ Theophrastus shows that the beds were infested with bugs or insects, as now.\*\*\* Plutarch mentions the situation of beds in a recess†††; and Herodotus, describing the chamber of the wife of Candaules, says, that, when undressing, she

\* Odyssey, l. iv.

† Esther, l. 6.

‡ Deut. iii. 11.

†† De Superstitione.

§§ Lex Lacon.

¶¶ Plut. Dem. Socr.

††† De Curiositate.

† Prov. vii. 17.

‡ Amos, vi. 4.

¶ Is. lxi. 8.

Prov. vii. 17.

\*\* Clio, i. 49.

†† De Ira. De Adulatione.

||| Casaub. Theophrast. 338.

\*\*\* Casaub. Theophrast. 338.

placed her clothes upon a chair near the door.\* When the bed was of a sofa form, the marbles in Spon represent it as very long, the husband in one corner and the wife reclining behind him; thus : —



From the word *κωνοπεια*, tent-beds are supposed to have been known to the Greeks; but as *κωνω*† signifies a gnat or mosquito, it probably means a covering to keep them off; such a contrivance still existing among the Hindoos.

In the days of Homer the Greeks sat at meat; and he mentions three sorts of chairs. 1st, The *διφρος*, which contained two persons, and was commonly placed for persons of the meanest rank. 2d, The *θρονος*, on which they sat upright, having under their feet a footstool, *θρηνης*. 3d, *κλεισμος*, a sort of easy chair, on which they sat, leaning a little backwards. Upon the arrival of Ulysses at the palace of Alcinous, that prince seats him in a magnificent chair, and commands his son Laodamas to give him place. The effeminate Asiaticism of lying upon beds at dinner was introduced before 548 B. C.; for it is mentioned in the account of the feast of Clisthenes by Diodorus. The Dorians of Crete continued to *sit*, but those of Sparta adopted the custom of lying, at first only upon hard benches, without cushions — a subsequent degeneracy.‡

Concerning tables, an important circumstance has not been heeded. There was mostly a prop, consisting of one or more feet, made of ivory or other materials,

\* Clio, 9.

† Ency. Méthod.

‡ Müller's Dorians, ii. 290.

and carved into the form of a lion or other animal, or of a hero, and then called Atlas, Telamon, &c. In the houses of the poor, this prop was of stone, and called καθερματευσις. The editors of the "Pompeiana" call it τραπέζοφορον; and one which supported Arthur's Round Table is still to be seen at Winchester. From Pindar's mentioning "the heroes sitting round the noble board," it seems that such a large round table was rather meant, than a long one. It is clear, however, that there were tables with a single foot (*monopodia*), with two feet (*bipedes*), and with three tripods.

The table, or wooden board, consisted of an ὀλνος, which could be taken off or on; and these ὀλμοι were made, in the heroic ages, of wood polished with art\*; but, in later ages, were adorned with plates of silver or other metals, and made of high-priced woods. Evelyn, in his "Sylva," speaking of the Tigrid and Pantherine tables†, so called from the spots on them, says that king Juba's table was sold for 15,000 sesterces; and that of the Mauritanian Ptolemy was far richer, being 4½ feet in diameter, and 3 inches thick, and reported to have been sold for its weight in gold. So luxurious were the ancients in this piece of furniture, that when the men at any time reproached their wives for their expensiveness in trinkets, they were wont to turn the tables upon their husbands; whence, says Rous, came the proverb. The Greeks did not use tablecloths; but Homer says, as does Martial also‡, that the tables were carefully cleaned with wet sponges. It has been said that, in the days of that poet, every guest had a separate table; but there may have been a confusion here with the messes, of which hereafter. The table, says Plutarch§, was placed in the middle of the dining room. These rooms are called by Athenæus οἰκοὶ τρικλινιοί, houses with three beds; but some of them had four, seven, nine, or more (dinner) beds in them.

\* Hence the epithets, ξίστην, θυζοος, κυανοσιζα, &c.

See, too, Plin. xiii. 15.

† De Conviv. Sapient.

‡ Apophor. n. cxliv.

Vitruvius makes the length of these dining-rooms twice that of the breadth ; some, no doubt, resembled those large-columned saloons among the Romans called also *œci*.\*

The primitive Greeks are presumed to have had only two meals a day — breakfast †, and a late dinner, the actual meaning of the Roman *cœna*, commonly construed *supper*. The former consisted of bread dipped in wine. Afterwards there were three or four meals : — the *δειπνον* (from *δει πονειν*), because people went to work after it, and sometimes the same as the breakfast ; but eventually applied, by change of name, to the late dinner ; the luncheon, called *δειλινον* or *έσπερισμα*, according to some authors ; but others make it the same as the *δορπος*, from *καυερπος*, because the last before bedtime. Breakfast, luncheon, and dinner seem to have constituted the Greek meals. Of these, it will be more clear to give distinct divisions adapted to modern terms.

*Family dinners*. — It is said that the mistress of the family and females did not dine in parties, except of relatives. But Plutarch ‡ shows that, at family parties, the mistress (and even daughter), plainly attired, did form part of the company. When Thales and Diocles were passing through a porticus to a dinner given by Periander, they were, after anointing and bathing, introduced to a particular room, also connected by a portico ; which shows the abundance of passages, and insulations of parts of the house. In this piazza sat Eumetis, daughter of Periander : she was combing the head of old Anacharsis (a method of endearment), to coax him out of information, especially concerning the ways of dieting and physicking the sick among the Scythians. Before the dinner, Melissa, wife of Periander, who had laid aside her richer habit, and assumed a very becoming but plainer one, sat down by her husband ; and, during the dinner, Melissa distri-

\* Lyson's Woodchester, 17.

† De Desid. Divitiar.

‡ *Θυστον, ακραιτιγμα, διανηστιαμας.*

buted the garlands ; sacrifice was offered ; and, when the minstrels had played a tune or two, she withdrew.\* There is no reason to think that these minstrels were, like our hired bands of music at public dinners, those which attended large meetings, but females belonging to the family ; for Montfaucon † has copied from Boissard a marble representing a family dinner, with a Greek inscription. Here a woman, seated in a bee-hive chair at the end of a dinner-bed, is playing upon a lyre, which, if correctly copied, has a neck or finger-board like a guitar ; which neck or finger-board (an Egyptian instance excepted) distinguishes, according to Burney, modern from ancient musical instruments. Eumetis, the daughter, though blushing, stayed after her mother, seemingly for instruction by the conversation. This was a particular party of sages and philosophers, where curiosity and instruction interfered ; but women were not excluded in more questionable society, for Hiero fined Epicharmus the comedian, because he spoke indecently in his wife's presence.‡

In Boissard are numerous marbles, representing family dinners of men, their wives, and sometimes children, which, though Roman, may be justly accounted assimilations of Greek fashions.

*Dinner parties.* — There were three kinds of these. 1st, The *ερανος* or *διασος*, a *club dinner*, where every man paid his portion, and no one was exempt, except *ασυμ-βολοι*, as poets, singers, and persons who diverted the company. To secure the contribution money, every one paid the sum beforehand, or gave his *symbolum*, a pawn or earnest, commonly a ring.§ The collectors and guests were called *ερανισται*, and thus are shown to have been the same persons. These entertainments were the most common ; and, as every man paid his share, usually the most temperately conducted. It is uncertain whether the *δειπνον συναγωγιον*, where persons met to

\* Plut. de Conviv. Sapient.      \* † T. iii. 65. and pl. 19; ed. Humphreys.

‡ Apophthegma.

§ Thus Terence, — “Dati annuli ; locus, tempus constitutum.”

drink together, was the same as the *αερανός* ; but in the *δειπνά επιδοσίμα*, or *εξεπίδοματων*, some of the guests contributed more than their exact shares. 2d, The *το απο σπυριδος*, where a person sent his dinner in a basket to eat it at a friend's house ; *απο σπυριδος διπνειν*, signifying also a gift of money, or fragments of meat in a basket, *σπυρις*, instead of invitation to dinner. 3d, The *γαμος*, or marriage-feast, provided at the expense of one person, though some covetous people made a *pic-nic* of it. 4th, The *ειλαπινη*, *ευωχια* and *ασυμβολον διπνον*, was also a feast given by one person.

*Invitation.*—There were persons \* employed to make the invitations from a list inscribed on a tablet ; the hour was specified. Relations and intimates often went uninvited ; as did friends introduced, called *shadows*, *σκιας*, or *umbræ*, from following the principal guests, and intruding parasites, whom the Greeks called *μυιαι*, or flies, because in Egypt that insect was the hieroglyph of an impudent fellow ; and flies, though expelled, still return. Plutarch says †, that they would even pimp, and do any mean office. Among the ancients, the party was limited to five ; at Athens, no more than thirty were allowed. Women were never invited.

*Preparation for dining out.*—Plutarch mentions a stranger, coming to a dinner, dressed as fine as hands could make him ; his clothes rich (a white dress, *cœnatoria vestis*), and a train of footmen at his heels ‡ ; a custom once prevalent among ourselves. They had previously bathed, washed their hands, and anointed themselves.

*Interval before dinner and salutations.*—The first ceremony was an embrace of the master of the house, more commonly junction of their right hands. Sometimes the lips, hands, knees, or feet, were kissed, as the person deserved more or less respect. The *χτυρα*, or *χυτρον*, was taking a person, chiefly children, but sometimes men and women, by both the ears, like a pot. The

\* *Κλητεις*, or *διπνοκλητοι*.

† De Adulat.

‡ Sympos. b. i.

appellation to such as they respected was usually *τιμις*, *worthy sir*; not *κυρις*, *master*. Until the dinner was served up, they spent their time in viewing the house, and commending the furniture.\* The next preparation, now, if not before the second course, was crowning their heads with garlands composed of flowers, provided by the master of the house in such profusion, as to adorn not only their heads, necks, and breasts, but often bestrewed the couches, and all parts of the room. Myrtle was in common use for garlands, because it was presumed to secure the head from aching. Lastly, the *δειπνοκλητωρ* (*inviter*), brought in a *bill of fare* (*γραμματιδιον*) of the different dishes. It is certain that Seneca mentions the summons of the family to meals by a bell; and, as the Greeks had one in the fish-market, Rome presumes that the Roman practice might also have obtained among them.

*Disposition of the guests at table, &c.* — In Homer, the chief persons occupy the uppermost places; and at public entertainments, an *ονομακλητωρ* (*name-caller*), called every visiter by name to his proper place. The room was perfumed by burning myrrh or frankincense, or other odours.

*Dishes, courses, &c.* — The dishes were brought in upon an *engetheca*, a sort of tray, the original of the Roman *repositorium*.† There were three courses, called, from the tables being removed, first, second, and third table.‡ The *first* §, a provocative of appetite, consisted of bitter herbs; at Athens, of coleworts, eggs, and a mixture of honey and wine, probably of the sharpest kind. The *second* course was more plentifully furnished; the *third* consisted of sweets. Rous says, that the meat was served up in dishes of wood, or of bronze for the better sort; but Plutarch || defides those who would not eat out of an earthen vessel.

Plutarch mentions, as things of great rarity, udder,

\* Rous, Robinson, &c.

† Πρωτη, δευτερα, τριτη τραπεζα.  
|| De Ira.

† Burmann's Petron. i. 177.

§ Διπτον προειμιον.

Italian mushrooms, Farnian cakes, &c. snow in Egypt. Contrary to our practice, the entrails of animals, which Rous calls *αλλαντες* (*i. e.* sausages), but never the brains, were favourite viands; and Athenæus, the great author on the subject, relates stories which attest it. Among these is a ragout called *nyma*; it was made of the meat of a pullet, or any other meat, cut small and minced, with the entrails added to it, also minced, until the whole was brought to the consistency of a pudding or sausage. With this they mixed vinegar and blood, toasted cheese, parsley, cummin, thyme, coriander, and other odoriferous herbs or seeds, onions, poppies, dried raisins, honey, and pomegranate kernels.\* Mr. Robinson's† account is so satisfactory, that it shall be here transcribed:—

“BREAD was called *αρτος*; and, being the chief and most necessary kind of food, it sometimes denoted all sorts of meat and drink. By a metonymy it was also denominated *σιτος*. The Greeks used to carry it in a basket, made of twigs or canes, and called *κανον* and *κανονι*. They baked their bread either under the ashes, and then the loaves were called *αποδιται αρτοι* and *ιγερνφιαι*, or in the *κριβανω* (a sort of Dutch oven), when they were denominated *κριβανται*; and the same bread was also termed *ιπνιτης*. They had, likewise, another kind of bread, called *μαζα*, which was common food, and was made of meal, salt, and water; to which some say was added oil. *Αλφιτον*, barley-meal, was chiefly in use; and the flour of barley was dried at the fire, or fried, after it had been soaked in water; and that barley-meal was in great request, appears from the portico at Athens, in which it was sold.‡ They also used a composition of rice, cheese, eggs, and honey, wrapped in fig leaves, and hence called *σπον*. *Μυττωτον* was made of cheese, garlick, eggs, and some other ingredients, mixed together. The poor excavated their bread, and into the hollow put sauce

\* Montfaucon.

† Antiq. of Greece, 495.

‡ *Αλφιτον σπον—σπον αλφισπυλλας.*

which they supped. This kind of bread was called *μιστυλλη* or *μιστυλη*. The poor of Attica lived also on garlick and onions." Plutarch \* derides those who would not eat bread, if it were bought in the market.

Every body knows the locusts and wild honey, upon which John the Baptist fed; and, in the present day, fried locusts are eaten on the shores of the Red Sea. The Greek poor were accustomed to feed on grasshoppers, and also on the extremities of leaves.

MEAT, says Plutarch†, was not, at first, eaten, because it was deemed sinful to kill animals that did no harm; but when, through increase of population, the Delphic oracle directed sacrifices to be made, lest corn and fruit should be extirpated, a flesh diet was adopted. Swine were the first used; and oxen were spared for some time, through their utility as beasts of draught. Lambs were prohibited, possibly on account of the encouragement of wool; but, in the time of Homer, the flesh of sheep, goats, swine, oxen, and the wild animals were roasted; but it is mooted whether, in the heroic ages, meat was ever boiled.

POULTRY and GAME.—The Delians invented the art of cutting capons: but there were other birds and game.

PASTRY (usually called cakes) was of various kinds, but not all made by professed cooks. Plutarch mentions voluptuaries who, besides Thasian wines, perfumed unguents, and varieties of pastry, expected cakes steeped in honey (the substitute for sugar), made by females.‡

SALADS, dressed with oil, are mentioned by the same author.

CHEESE.—Barbarian cheese was in high request.§

VEGETABLES.—Athenæus makes the choicest of these the Martinæan radish, the Theban turnip, and the Ascræan beet.

FISH.—An idea of effeminacy was, at first, attached

\* De Ira.

† De Volup. sec. Epicur.

‡ Sympos. viii. 8.

§ Plut. de Conviv. Sap.

to eating fish ; and Homer shows that the Greeks encamped near the Hellespont never used any ; nor did the companions of Ulysses let down a hook till all their provisions had been expended. As in the whale's disgorgement of Jonas, it was said by Anaximander, that men were first produced in fishes, and, when they were grown up and able to help themselves, were thrown out, and so lived upon the land ; and this superstition was another cause of the avoidance of such food.\* But though fish is not mentioned as food by Homer, it is certain that all in the heroic ages did not abstain from it. In the end, it was deemed more excellent than other food, and obtained from hence the peculiar name of οψων ; and Plutarch says, that the term οψοφανοί, and φιλοψους, was not applied to great eaters, as was Hercules, who, after meat, ate green figs ; or to Plato, who loved figs ; or to Arcesilaus, grapes ; but to those who frequented the fish market, and soonest heard the bell.† A dinner upon the sea-shore‡ was, he says, the most delicious of all ; and he shows us that fish were cut into pieces and *boiled*.§ He adds, that Antigonus reproached Antagoras the poet, when he was attired like a cook, boiling eels in his tent, by asking him whether Homer ever did so ? || The Greeks were great lovers of eels, dressed with beets, which hence had a distinctive name ¶ ; and they also ate salt fish (ταριχος), of which the neck and belly were the favourite parts : and from the days of Homer, salt was used in almost every kind of food.\*\* Athenæus makes, among the choicest dainties, not only the eel, but the Sicilian lamprey ; the belly of the thynnus, a fish taken at Pachinus, a promontory in Sicily ; the Simethian mullet ; shell-fish from Pecorus, and herrings from Lipara.

WINES.—Homer's heroes used to drink wine, with or without water ; but Plutarch, who makes a distinction between high-coloured and pale wines,—the

\* Plut. de Conviv. Sap.

† Sympos. iv. 4.

‡ Ibid.

§ De tardit. pen.

|| Sympos. ubi supra.

¶ Εγγυλις εντετυλανωμει.

\*\* Robinson.

latter denoting, he says, loss of strength,—makes this wine of the heroes what the Greeks afterwards called night-wine.\* In the days of Homer, it was taken together with bread, and drunk also by matrons, virgins, and children. From the commixture of water (the wines of the ancients being, in fact, syrups), the drinking-cups were called κρατηρες παρα το χεισασθαι.

The proportion of water was optional, and varied in different nations. Sea-water mixed with wines was thought to aid digestion, says Mr. Robinson; but Pentianus†, because it improved the flavour, and accelerated the progress of age. Plutarch condemns the drinking of it unmixed, because he says‡, that which was intended to excite mirth and rejoice the heart is thus converted into a means of producing sadness and intoxication; and he blames those who would not drink, unless they had ice to mix with it.§

Hesiod's rule was, to draw the wine out of the vessel: but after ages strained it; and it was racked off into vessels, to preserve the sweetness by preventing fermentation.|| Homer says, that the wine was kept either in earthen vessels (κεραμοις), bottles, or skins (ασκαις), or in casks. Old wine was in the greatest repute. Mr. Robinson says, that the most famous wines of the Greeks were the οινος πραμνιος, Θασιος, Λεσβιος, Χιος, Κρης, Χωος, and 'Ροδιος; but that the οινος μαρωντης is most commended in Homer. This Maronean wine was grown in the maritime coasts of Thrace, was of black colour, and undecaying strength, and was drunk with a mixture of twenty times its quantity of water.¶ Thus it was rather a spirituous liquor. From the Pramnian wine, which was Smyrnesse, cheese and barley-meal, Hecamede, in the Iliad\*\*, prepares the κυκεων, a mixture. Mr. Robinson adds, that the wines of Zacynthus and Leucas were thought unwholesome, on account of the plaister that was mixed with them; that

\* Sympos. vi. 7.

† De Ira.

‡ Plin. xiv. 4.

† Plin. xiv. 8.

|| Sympos. vi. 7.

\*\* Il. λ.

† De Garrulis.

Nat. Quest.

the wine of Corinth was disliked, because it was harsh, and that of Icaria, because it was both harsh and heady. The old wine of Corcyra was reckoned extremely pleasant; and the white wine of Mende remarkable for its delicacy. The wines of Naxos and Tharos were compared to nectar: and the latter was preferred to the Chian, when of the first quality; for there were three sorts. Pliny is copious upon all these kinds.\* Some were made part of the *materia medica*†; and Plutarch, from Homer, notes that sweet wines were given to conciliate kindness; the strong to Polyphemus, and the astringent to wounded persons and horses, to make them more spirited.‡ The Greeks had also second wines, called *deuteria*, made by aqueous dilutions of must or lees; and artificial wines, as οἶνος κριθινός, barley-wine, and οἶκος, being a general name for all *made wine*; οἶκος ἐγνητος, or οἶκος, with the same epithet for *palm-wine*; which Pliny§ makes an expressed liquor from the fruit, of Indian origin.

When M. Chateaubriand was at Athens, he disliked the wine, from its resinous flavour, and conceived that the fir cone upon the thyrsus of Bacchus was derived from the custom of immersing these cones in the liquor. The Greeks were in the habit of perfuming their wines with myrrh, organum, aromatics, fruits, and flowers, as Mr. Robinson, among which Brodæus|| puts the leaf of the *Nardus* (Oriental and Gallic), and the Illyrian Iris. Such wines the Greeks used to call ανθοσμίαον οἶνον and ανθινον, and Ennius and the old Latins, *flower of wine*, with which the former represents an old woman to be drunk.¶

*Cooks, carvers, waiters, &c.*—The heroes in Homer, as they were their own butchers, so they were also their own cooks. This is shown by the example of Achilles, who is represented as “cutting up the meat into small parts, and transfixing them around the spits.”

“Και τα μεν ευ μιστυλλε και αμφ’ οἶελοισιν επειρε.” Il. δ.

\* L. xiv.

† L. vi. 28.

‡ Id. c. 8.

|| C. xx. a. 4.

† Pipitian, in Id. c. 9.

¶ Annot. in Plin. xiii. 13.

The object of L<sup>y</sup>curgus was to establish permanent hardy, and military habits ; and the profession of cook, at Sparta, was hereditary ; and, consequently, they had no inducement to vie with one another in the delicacy and luxury of their dishes. They cooked the black broth as their ancestors had done before them. For instance, some cooks were only allowed to dress flesh, others to make broth, &c.\* Heralds (κηρυκες), in addition to their civil and military employment, also officiated as cooks, and performed many holy rites at sacrifices ; whence they were presumed to have acquired skill in divination from the entrails, &c. But notwithstanding, when the art became a trade, some Greeks thought it a profession unworthy the meanest free-born person. In later ages, when culinary science was in the highest esteem,—another corruption of the Asiatic Greeks,—Sicilian cooks (that country being remarkable for luxurious living) were valued above all others.† These cooks were men ‡, and, according to Plautus, were hired by the day, at a high price. Females did not like the profession ; for, in the early ages of Rome, the Sabine women conditioned that they should not be cooks.§ Athenæus, the great author on the subject, shows their skill in making meat resemble both fish and poultry. The Attic laws directed that the cooks should give in their names to the *gynæconomi*, or those that had the care of the women, to guard them from any indecency or indiscretion.|| The skill of these cooks was very great ; for Athenæus says, that king Nicomedes, desiring some herrings when at a distance from the sea, his cook got up an imitation of one, along with other fish. He mentions also a cook who drew and stuffed, without paunching, a pig, half roasted and half boiled. He made a little hole under the shoulder, through which he drew all the intestines ; after which he washed it with wine, poured in at the mouth, which he let run

\* Muller's Dorians, ii. 291.

† Plut. Apothegms.

‡ Montfaucon.

† Robinson. Encyc. of Antiq.

§ Id. Rom. Quest.

out by hanging it up by the feet, and then stuffed it with forced meat. They also made pastry, cakes, sauces, and ragouts.\*

*Carver.*—Achilles, in Homer, carved for his visitors, and every man had his mess, which he was expected to eat; not call for what was not to be had, nor find fault with the provisions. Joseph is represented as sending to Benjamin a larger mess: and it was customary to help the persons most respected to the best parts. The custom of sending portions (μεριδες) to absent friends occurs in Samuel, i. 1., Nehemiah, viii., and Plutarch.† In after ages, every man carved for himself.

*Waiters.*—In the heroic ages, the κηρυκες, or *heralds*, who were deputed to all sorts of offices, and handsome youths (even those of high rank) and girls, that the eye might be delighted, filled the cup; the bigger boys (ἐδροφοροι) serving the water, the younger (οἰνοχοοι) the wine. In the heroic ages, full cups were distributed to men of quality; equal proportions to the rest. Montfaucon‡ has given us several figures of these waiters, who had their hair curiously dressed, and wore tunics, without sleeves, reaching only to the knee, and drawn in at the waist.

All these persons, and the arrangement of the dinner, were under the direction of the symposiarch, who was sometimes the founder of the feast, sometimes a deputed person, and sometimes one elected by lot or suffrage; and next to him, and sometimes the same person, was the toast-master, or βασιλευς.§

*Vessels, cups, &c.*—The Asiatic Greeks introduced the abacus or buffet (whence came our sideboard of plate), filled with cups rather for show than use, being, in the luxurious ages, made of gold, silver, or other costly materials, curiously wrought, inlaid with precious stones, and variously adorned. The Merulean vases were especially valued, and some vessels were of glass. Horns were first used, but, according to marbles, they

\* Montfaucon.

† iii. pl. 20. f. 4—7.

‡ Casaub. in Theophrast. 306.

§ Enc. Method.

seem to have been made latterly of pottery, of the form of parts of animals, and held by the waiters, as reservoirs from which they poured out water or liquor, while others held a patera or plate, as did those of the middle age a trencher. The cups were made of pottery, wood, glass, bronze, gold, or silver, and distinguished by different denominations. But the cups most in use were the *κισσισια*, what Euripides calls *ποτηρας κισσινας*; cans made of the wood of ivy, from respect to Bacchus, because they could throw them about like dice, when playing the *kottatus*; a game from which they augured success or failure, according to the part that lay uppermost.\*

*Behaviour at dinner, table-talk, &c.*—By way of grace, a piece of the viands, as an offering to the gods, was thrown into the fire. This oblation has been confounded by some authors with the libations, a term which appertains to liquids. Long speeches were not to be made; and during the dinner there was reading, which Plutarch wished to be more decent and edifying, than merely jocund. Paring nails was the height of vulgarity, but spitting, coughing, and speaking loud were not disapproved. When the ancient Greeks had greased their fingers (for they had no forks), they rubbed them with soft bread, and threw the pieces (*απομαγδαλια*) to the dogs; but, afterwards, towels (*εκμανεια*, *χειρομακτρα*), &c. were used. Numerous superstitious omens were ascribed to accidental incidents, which occurred during the dinner. After dinner, they again washed their hands, which, Rous says, was distinguished from that before dinner, by the term *απεινψασθαι*. In this last operation they added, says Athenæus, some sort of stuff for scouring the hands†, and, lastly, perfumed them with odours.

Wine and water (*κεκρασμερον*) was usually drunk during dinner; and, at the first introduction of the mixture, “they used to remember,” says Rous, “*δια Σωτηρα*,

\* Plut. de Music. This game was played in different manners.

† *Σμηγλαι αποσφινος χαρις*.

Jupiter, the presumed founder of the rain, (because a shower once falling into wine preserved the party sober,) and the mixture. To this they added the health, as he calls it, *διος ολυμπια*, if it were a victor's feast, and *ωραιηναμια*, if it were at a wedding, altering the name of the health according to the occasion of the feast; and yet Sophocles\* seems to make the third round to be that of Jupiter Servator." He has omitted the libation to Vesta.

Although these *healths* resemble our toasts, and heathens toasted gods, and the mediæval Christians, in imitation, saints; yet the word used by Sophocles, *σπονδη*, implies a libation, (spilling a little of the liquor on the ground); and Plutarch mentions the *οινοχον* or libatory cup, out of which they performed their libations to the gods before they drank; and it was deemed by Hesiod, an omen of ill-luck, if a *sacred* was put upon a *drinking* cup.†

Other authors call these, particular and solemn cups; and to them add the *αγαθου Δαιμονος κρατηρ* (*the cup of good genius*), i. e. of Bacchus. It seems to have suggested our *grace cup*, because it was introduced before the table was cleared. The *cup of health* (*κρατηρ υγιειας*) termed, as well as the cups of Jupiter, and the Agathodæmon, by some *μετανιπτρις* or *metaniptron*, from being drunk after washing the hands, at the close of the meal; and the last cup, *κρατηρ Ερμου*, before they went to bed, and left off, drinking to Mercury. However authors may differ in other respects, they all agree in making the sacred cups three in number.‡

In Homer every guest seems to have used a distinct cup, from which he drank when he pleased. On this account the cups in the heroic ages were capacious; and the cup of Nestor was so weighty, that a young man could scarcely carry it; but the custom of using large cups was derived from the barbarous nations, and in the primitive times was confined to the heroes. The

\* Και διος σωτηρος — Σπονδη τριτη κρατηρος.

† Robinson, Roms, &c.

† Plut. de aud. Poem.

following is the form of the cups, carried by a Silenus and an Indian Bacchus in Mr. Hope's collection, and



it may be presumed, that the cups of the heroes were of similar pattern. In after times, the fashion was so far retained, that the cups used after dinner were larger than those for the meals.

The wine was here drunk, says Rous, unmixed (*ακρατον*) and, notwithstanding what has been previously said concerning distinct cups, he is correct in stating a great bowl (*κρατης*) being placed in the middle of the table. Virgil attests this, where he says, that after the meal and removal of the tables (*prima quies epulis*), they set on large bowls, and *crowned the wine*, i. e. filled the bowls to the brim; *crowning wine* being used in this sense by Homer, Aristotle, and Athenæus.\* The wine was emptied from the bowl into the cups, by a substitute for a punch ladle, called *αινηρυσις*†, and when a flagon was used, and not a bowl, the circulation of the wine was stopped by putting a cup upon it.‡

Homer says, that it was the old custom for the guests to drink one to another, (a Lydian custom, says Muller §, of Ionic introduction,) which custom they called *φιλοτησιον κυλικα*, or *φιλοτησιαν*, a cup of good friendship, and *δειξιωσεις*, takings or pledgings. Thus Rous. Mr. Robinson thus enters:—"Respect was paid to the most honourable guests by drinking to them first; for it was customary for the master of the feast to drink to his guests in order, according to their quality. The manner of doing this was, by drinking part of the cup, and sending the remainder to the person, whom they named, which was termed *προπινειν*." But other accounts say||, that the Greeks, when they drank any one's

\* See not. Delph. on Georg. ii. 528., and Æn. i. 797.

† Casaub. in Theophr. 286.

§ ii. 292.

‡ Plut. de aud. Poem.

|| Enc. Antiq.

health, generally sent him an *empty* cup, the Romans a *full* one. He who drank to another, said, sometimes, *χαίρει*; at others, *προπινω σοι καλως*, "*I wish you prosperity*;" to which the answer was, *λαμβάνω απο σοι υδωρ*, "*I take it kindly of you*." In speaking these words, the toaster drank a part of the wine in the cup, and sent the rest to the person whom he saluted. He presented it with the right hand; and when he drank to all the company *ab imo ad summum*, from the bottom to the top, began always on the right, and the wine was served from right to left. They began with small cups, proceeded to larger, and never drank in large companies without a toast; at first the gods, then present friends, then mistresses, then absent friends ("give me a friend" being derived from them). In drinking to such friends, Mr. Robinson says, at the mention of every name, they poured out a little wine as a libation to propitiate the gods; and in toasting their mistresses, took as many cups as there were letters in her name. From an inscription on an urn in the *Villa Mattei*, it appears that the classical ancients not only believed that the dead feasted upon the meat and wine offered at their tombs, but were capable of drinking healths to their friends upon earth.

But these would have been insufficient to eke out a long evening. Therefore, they had *σχολία*, i. e. Bacchanalian songs (and such were many of the delightful songs of Anacreon), as well as others more serious, patriotic, and heroic. The singer, if he did not understand music, held a branch of myrtles, which he handed to another, and he to a third, and so on, till all had successively sung the song.\* Other accounts say, that there were three sorts of songs; one, where all the company joined in chorus; the second, sung by the whole company in succession; and the third, by those skilled in music, to whom a lyre was therefore handed. To this singing was often added the *cottabus*, a pastime invented by the Sicilians, and a silly mode of fortune-

\* Enc. Method.

telling, divided into three kinds. In the Sicilian game, a piece of wood being erected, another was placed on the top of it, with two dishes suspended from each extremity, like scales. Beneath each dish was a vessel full of water, in which stood a statue. The players stood at some distance, holding a cupful of water or wine, which they endeavoured to throw into one of the dishes, that the dish by that weight might be knocked against the head of the statue under it. The person who threw so, as to spill the least water, and to knock the dish with the greatest force, was the conqueror.\* The Romans simplified this cottabus, by making it consist of dropping a little of the liquor from the cup, held on the back of the hand, upon the floor, and prognosticating the success of his love affairs from the sound of the liquor upon the floor.† A third cottabus consisted in floating little cups upon a vessel of water, and throwing on them from a distance the remains of the wine which had been drunken: The more they made the cups sink, the better was the omen.‡ A fourth kind of cottabus consisted in throwing dice, and a fifth in keeping longest awake. So fond were the Greeks of the first cottabus, that they not only prepared vessels with the greatest exactness, but erected circular houses, so that the *cottabi* being placed exactly in the middle, the players stood at equal distances. § There were prizes for success. But these were not the only amusements.—Dancing girls, and female performers on the flute, are presumed to have followed the *scolia*. Upon this, most of the company arose to dance, and as we have our anchovy toasts, so relishes were brought in at the same time; as grasshoppers, sliced radishes, pickled in vinegar and mustard, roasted vetches, and olives taken fresh out of pickle. A fresh stock of wine, and larger goblets were then introduced.

Sometimes buffoons, jugglers, and showmen were introduced; such as fire-eaters; legerdmain persons,

\* Valpy's Fundamental Words of the Greek Language, p. 147.

† Plin. xiv. 22. &c.

‡ Enc. Method.

§ Robinson.

with cups and balls ; writers or readers whirling rapidly round ; tumblers dancing on their hands, head downwards ; women dancing and throwing up hoops, and catching them ; and rushing amidst naked swords. Most of these tricks were performed to the sound of the flute. To these were added exhibitions, which, however, might occasion great alarm ; for Plutarch\* mentions the terror occasioned by the sight of a monster, half-human and half-horse, introduced by a shepherd in a leathern bag. Matters more serious sometimes occupied conversation ; such as narration of stories and fables, reading pleasant discourses, or recitation of poems. Every body has heard of the riddle proposed by Samson to the Philistines, at his nuptial feast, and the queen of Sheba's question to Solomon. In the same manner, the Greeks introduced enigmas, and puzzles of a more serious and instructive character, called *γρίφοι*, from *γρίφος*, a fishing net, because it caught and bewildered the mind. Bochart says, that the puzzle of Samson, in the book of Judges†, was a *γρίφος*. Athenæus and Pollux mention both prizes (garlands, cups of wine, &c.), and penalties, as annexed to this sport, the latter a glass of salt and water‡, or salt and wine, to be drunk without taking breath.

Drinking bouts were not uncommon. Diogenes Laertius mentions an instance, where a person was obliged to drink, or have the wine thrown in his face.§ When any person drank off a large cup without intermission, the company applauded him with "*Ζησσεις, long life to you.*" At Athens were three public officers, who attended at feasts, to see that every person drank his portion, and hence obtained the name of *wine inspectors* (*οινοπται*) and *eyes* (*οφθαλμοι*).|| They who refused to drink were ordered to depart, say some ; but others, that they might not do so unless they had leave of the master of the feast. Sometimes they would sit up, drinking all night for a wager, and he that could

\* De Conviv. Sapient.  
‡ Enc. Method.

† " Out of the eater," &c. xiv. 14.  
§ Rous. || Robinson.

keep himself awake till morning, had a cake made of flour and honey (πυραμυς), for so doing.\*

Sometimes the founder of the feast made presents, commonly cups, to each visitor; and before separation, wine was poured out as a libation to Mercury, who was believed to send sleep and agreeable dreams.

Such were the luxurious habits introduced by the Asiatic Greeks; but the Dorians long resisted these debaucheries. The Dorians adhered to the ancient Greek usages in their custom of eating together, or of the *syssitia*†; for these public tables were not only in use among the Dorians (with whom, besides in Crete and Sparta, they also existed at Megara in the time of Theognis, and at Corinth in the time of Periander), but they had also once been a national custom among the Cœnотrians, and their kinsmen the Arcadians, particularly at Shigaleia; and among the Greeks of Homer, the princes, at least, ate together, and at the cost of the community; a custom which was retained by the Prytanes at Athens, Rhodes, and elsewhere. In particular, the public tables of Sparta have, in many points, a great resemblance to the Homeric banquets (δειπτες); only that all the Spartans were, in a certain manner, considered as princes. With regard to the food, it is probable that in Sparta much had been retained from ancient usage, and that the rest had been, from its first origin, peculiar to the nation. The bakers, whose trade, like that of the cooks before mentioned (foreign cooks not being tolerated in Sparta), generally baked nothing but barley bread (αλφιτα): maize bread was only eaten at the dessert of the public tables, when presented by liberal individuals. The latter kind of bread was originally scarce in Greece, whither it was introduced chiefly from Sicily; in which country they had also a particular kind of Doric maize bread, of coarser meal than was common elsewhere. The chief dish of meat at the public tables was the black broth (μελας ζωμος); also pork: the meat being subjected to stricter regu-

\* Roua.

† From *συσ* and *σιτῆς*.

lations than any other kinds of food. Poultry and game were generally eaten after dinner; beef, pork, and kid were chiefly supplied by the sacrifices, which, upon the whole, were an exception to the Striditia. Their mode of drinking was also that of the ancient Greeks. Before each person was placed a cup, which was filled by the cup-bearers with mixed wine, when it had been emptied: in Crete, however, the whole table drank from one large goblet. The wine was, however, not passed round, and no person drank to another; for these were Lydian customs, introduced by the Ionians. Both in Sparta and Crete, it was forbidden by law to drink to intoxication; and no persons were lighted home, except old men of sixty.

In Sparta, the guests, as in the time of Homer, were called *δειπνιμονες*; and a *κρεοδειπτης* presided at the meal, as a *δειπτρος*, in ancient times; each guest in Sparta having a certain portion or mess allotted to him.

But a still more beautiful feature in the Doric character was the friendly community of their public tables, founded upon the close union of the company of the tables (*εταιρια* in Crete), into which fresh members were admitted by unanimous election by ballot. Whether a preference was shown to relations is uncertain. The *syssitia*, indeed, as divisions of the state, were founded upon a supposed relationship, i. e. the connection of clans, or *γενεα*: but here we are speaking of smaller societies, consisting of about fifteen men. A company of this kind was a small state in itself, arranged upon aristocratical principles, although the equality was not interrupted by the privileges of any individuals. The ties of this friendly union were, however, drawn still closer by the constant intercourse of giving and taking, which enriched the scanty meal with the more palatable after-meal (*επαικλιον*) or dessert, which no one was permitted to purchase; from which the *κοπις* should be distinguished, a sacrificial feast, which individuals furnished on stated occasions, and invited to it any friends whom they wished, and particularly the kings. The

*phiditia* were originally intended to increase the comforts of the partakers. The conversation, indeed, turned chiefly upon public affairs: but laughter and jocularities were not prohibited. Every person was encouraged to speak by the general confidence; and there were frequent songs. Nor was the appellation *φειδιτια*, that is, the *spare* or *scanty meals*, of any antiquity, and the Spartans received it from abroad, by whom, as well as in Crete, they were once called *ανδρεια*, or the *meals of men*; for the men alone were admitted to them; the youths and boys eating in their own divisions: but the small children were allowed to eat at the public tables; and, both in Crete and Sparta, they sat on low stools near their fathers' chairs, and received a half share, without any vegetables (*αβαμβανευστα*). The only *επισκυλον*, or dessert, eaten by the boys was some dough of barley-meal, baked in laurel leaves, and kneaded in oil. The women were never admitted to the *syssitia* of the men: both in Sparta and Crete, the rule was, that they should eat at home: in the latter state, however, a woman had the care of the tables of the men.\*

*Manners and customs of private life continued.*—Amongst the Dorians and ancient Greeks, the conjugal relation was that of equality, and the wife was called *δέσποινα*, mistress; but amongst the Ionic Athenians, the ancient custom of Greece was almost entirely supplanted by that of the East: women were regarded in a sensual and inferior light. The wife shared the bed, but not the table of her husband; she did not call him by his name, but addressed him by the title of lord, and lived secluded in the interior of the house.† Aristotle, however, reckons it unbecoming for a man to meddle with any thing in-doors, or even to know what was done there. The wife had, therefore, the care of the *ménage*, and superintended the spinning, weaving, embroidery, and needle-work carried on in the house. In the heroic ages, they drew waters (afterwards con-

\* Muller's Dorians, ii. 290—295.

† Ibid. ii. 303—305.

signed to slaves), kept sheep, fed cows and horses; even loosed (and watered, as did Andromache) the horses from their husbands' chariots; conducted the men to bed and the bath; perfumed, dressed, and undressed them; and performed almost all the laborious offices of the house. There was a particular forum, called *γυναικεια αγορα* (*women's market*), or *κυκλος* (*circles*), because Homer, Sophocles, and Euripides show that the primitive fora were mostly of that form. Here were sold every kind of delicacy, except meat.\* Newly married women were confined so closely, that they could not go beyond the door of the *αυλη* (*street-door*); but, after they became mothers, they could go to this forum and elsewhere, attended by aged women, their companions at home: if the mistresses were young, their former governesses, or old men, or eunuchs. In these excursions, their faces were covered with veils, but so thin, that they could see through them. But the women were not always mere housewives; some of them were famous for their drawings†; and Plutarch says, that the lady who is studious of geometry will never affect the dissolute motions of dancing; and she that is attracted by the sublime ideas of Plato and Xenophon will look with disdain upon lascivious tales (the Milesian, the substitutes for novels) and schools of Venus, and condemn the soothsayings of ridiculous astrologers.‡ All these accomplishments and offices grew out of their education; for, according to their stations in life, they were taught to read, write, sew, spin, prepare the wool of which the clothes were made, and superintend the ménage — sometimes music and literature. As they assisted in the sacred ceremonies, they were taught to sing and dance. Their mothers instructed them to be prudent, hold themselves upright, keep in their shoulders, be extremely sober, and avoid embonpoint. Plutarch adds of the girls of his era, that they generally worked at netting or girdles; and that

\* Casaub. in Theophrast. 125.

† Id. Conj. Prec. 44.

‡ Plut. de Virt. Fœm. Proem.

some of the most ingenious made riddles. The *chaperon* was the nurse, who always resided in the family which could afford it; and girls rarely slept alone, or sat alone.\* Indeed, they were locked up, and subjected to a severe diet. Their waists were constricted, to give them a fine and light form.† The Spartan girls were used to gymnastics, and made *hoydens* by education purposely.

The Athenian women, says Rous, were, although they suckled their children, too proud to nurse; and there were, as now, *wet* and *dry* nurses.‡ Lacedæmonian women were preferred, because they did not swathe the children; used them to any kind of food; taught them not to be afraid in the dark, and did not spoil them, so as to make them froward and peevish.§ The infants new-born were laid in imitative bucklers (the Lacedæmonian fashion), elsewhere corn-vans (λικνα) or among the Athenians dragons of gold,—all fashions intended for good omens. The child, as soon as born, was washed in warm water (among the Lacedæmonians in wine); the navel cut, ομφαλητομία. During the time of suckling, they used to carry the children out to air, having with them a sponge full of honey, in a small pot, to prevent crying. To compose them to sleep, they sang *Lala*, or *Baukalan*; of which word the precise sense is not clear.¶ They, as well as the Romans, but not the Lacedæmonians, swathed the infants in the tight fashion once used among us, as may be seen upon a coin of Antoninus, published by Séguin, which represents the accouchement of Rhea.|| The children were brought up in the gynæconitis.¶¶ They used to frighten them with the cry of *Acco* and *Alpheto*\*\* ; the former of whom is only known, from vague traditions, to have turned fool from beholding her ugly visage in a glass; and the latter to have been the subject of tales now lost; also by a bugbear called μορμολυκειον, which, Valpy says, was a

\* Barthélémy, Jeune Anachars.

† Robinson.

‡ See, too, Philostrat. l. i. n. 21.

\*\* Plut. de Stoic.

† Ency. of Antiq.

‡ See Valpy

¶ Plut. in Pelopidas.

mask, made for the purpose of frightening. They were not weaned till after they were able to walk.\* They were dressed like their parents, and in clothes of a similar form: their hair alone differed; that of boys was long, because they did not cut it till adolescence. Sometimes they wore it long and curled, like that of young girls: thus the hair of Taras, upon the Tarentine coins, is tied behind, and towards the top of the head. Plutarch says, that children were taught how to put on their shoes and clothes, and to take their meat in their right hands, and hold their bread in their left.†

Æschines assisted his father, who was a schoolmaster, in teaching children their letters ‡: these they learned by means of a smooth board with a narrow rim, called *abax*, from A, B, Γ, &c.; and the same board served also for teaching the rudiments of writing and the principles of geometry. The abax being strewed with green sand, the *pulvis eruditus* of classic authors; it was easy, with a radius or small rod, to trace letters, draw lines, construct triangles, or describe circles.§ As to reading, Guiliatière, who visited Athens in 1669, gives us the system of mutual education, which we term that of Bell and Lancaster, and was at that time practised in Greece. His account of it is this:—"We found about thirty young lads sitting upon benches, and their masters at the head of them, teaching them to read, &c. His method was pretty, and much beyond ours; the master causing the whole class to read at a time, without confusion, every scholar being obliged to attention, and to mind what his next neighbour reads. They had each of them the same author in their hands; and, for example, if he had thirty scholars, he chose out the same continued discourse, and gave them about thirty words to read. The first boy had the first word, the second boy the second word, the third had the third word, and so on. If they read handily and right, he gave them thirty words more; but if any of the boys

\* Plut. de Progr. Virtut.

† Id. Orat. s. 6.

‡ Id. de Fortuna.

§ Fency. Brit. art. *Abacus*.

were out, or imperfect, he was corrected by the next, who was always very exact in observing him, and he his neighbour. To obviate any of the scholars eluding this order, by preparing himself for any single word, their places were changed, and he who at one reading was in the first place, was removed a good distance in the next. Thus one lesson was enough; and, what was very convenient for the master, the boys were not constrained to come to him one after another, for every one was a master to his neighbour."\* That this was the ancient system, is beyond doubt. It was said of Greece, that it took the best course in breeding up children of any country in the world. The children were usually taught, first to swim and dive, and then to read (*πρωτον κλυμβαν, δευτερον δε γραμματα*). If the father was poor, he was brought up to a trade; if able and rich, to grammar, geometry, rhetoric, music, recitation, ethics, arms, dancing, the fine arts, drawing, &c. Writing, says Müller, long considered as a foreign craft, and letters, called Phœnician symbols, were introduced from Asia, and were very imperfect before the 60th Olympiad. Arithmetic was taught by an *αβακιον* or counting-board, and counters, which were either pebbles, *↓ηφοι*, or pieces of bone or ivory, or even silver coins. According to the character or situation of these counters, they signified any sums desired; and for credits they set down counters, and for debts took them away; and, as soon as the board became cleared, the opposite claims were exactly balanced. They are also said to have had another abacus, which consisted of a frame, within which were threads strung with balls. Each of these was made to signify a unit or a ten, and they worked addition by uniting them, and subtraction by separating them. There was also a method of counting by the fingers.† They were conducted to and from school by a slave called *pædagogus*, who was

\* Guiliatière, *Athens Ancient and Modern*: transl. Lond. 1676. Dodwell's *Greece*, i. 91.

† See *Nicomachus*, *Boetius*, and *Pfellus* (published A.D. 1556), for Greek arithmetic, of which Table I. is engraved hereafter.

generally a person unfit for any thing else; and the girls (for they went to school with boys sometimes), had a pædagogus also. But Evelyn, in his translation of Chrysostom "De Educatione," mentions οἱ τροφεῖς, *altiores nutritii*, nursing-fathers, as distinct from the *pædagogus*.\* From the schools, they went to the gymnasium, where they attended to running, wrestling, and similar practices; necessary, before the invention of gunpowder, in the art of war. Sometimes they had private tutors, for Isæus thus taught Demosthenes. The punishment of gross misbehaviour was annexation to a *πασσαλος* or *τυμπανιον*, and whipping (δραιπαταλευεσθαι, or *τυμπανιζεσθαι*, or *αποτυμπανιζεσθαι*); but whether the *missalus* or *tympanum* here implied an upright post, or a board, to which the delinquent was fastened, and laid upon the ground, is not clear; but from the phrase in Aristophanes, "δραιπαταλευθησιν χαμαι," *you shall be flogged upon the ground*" (with rods is mentioned), the latter is most probable. It appears, from Pollux and others, that the games of the Greek children were (1.) The *χυτρηνδα*, where the child who was the *χυτρα* sat in the middle, and the rest ran round him till they caught another, and put him in the place of the *χυτρα*. The French *colin-maillard*, our frog in the middle, and hot-cockles, have been severally deduced from it. (2.) The *musca ænea*, described by Pollux as a sport in which a boy blindfolded exclaimed, "I will hunt the brazen fly," the others answering, "You shall hunt him, but you shall not catch him;" and beat him with ropes until he had laid hold of some of them. (3.) Spinning-chafers mentioned by Aristophanes (in *Nubibus*), the threads being, however, fastened around the beetle's legs. (4.) *Ostrachinda*, tossing up a shell, smeared with pitch on one side and white on the other, and crying *νύξ* or *ἡμερα*, *night* or *day*, *our head* or *tail*. (5.) *Epostrachismos*, duck and drake. (6.) *Elkustrinda*, where a rope was passed through a hole in a beam, and the ends held by boys, who pulled against each other. (6.) *Apo-*

\* Evelyn's Miscell. 140.

*didraskinda*, hide and seek. (7.) Blindman's buff, mentioned by Pollux. (8.) *Trundling hoops*, seen on marbles. (9.) The Roman *micatio*, said to be an invention of Helen, who played with it against Paris, and won. Both named a number, and he who guessed right won the game. It is the modern Italian *mora*, and still used in Holland. (10.) *Αρτιαζειν*, *odd or even*, and many other children's sports; for it is remarkable that nearly all of them are of the most remote antiquity. The Greek children ate at the tables of their parents, but were only seated, not recumbent. They bathed separately; they were forbidden to eat fast, or to giggle, or to cross their feet awkwardly. They were, in walking, to bend down their heads from modesty. Wine was not allowed to them.

When the sons arrived \* at the third or, at the latest, seventh year of their age, they were taken by their fathers (who then swore to their paternity) to the *Φρατορες*, and registered in the tribe. The usual time upon which this was done was the third day of the feast *Απατουρια*; and this third day was called *κουρεωτις*, because on that day they cut off a lock of the boy's hair, (*μαλλον, σκαλλον, θρεπτηριον ηλοκαμνον*), which was consecrated and offered to some god. After this, they went to school and the gymnasia. Upon reaching the age of eighteen, they were enrolled among the *ephebi*, or youths capable of military duty; and, after a libation of wine to Hercules, their hair was cut a second time, and offered to some river god, because water was a principal cause of life and death. After two years, when they became twenty, what Demosthenes calls *επιδιστες ηβωντες*, they became *men* (*sui juris*), and were registered by the demarch in his *λεξιαρχικον λευκωμα* (*album lexiarchicum*), a book wherein he kept the names of all those that belonged to his *δημος*. This entry made him master of his estate. Besides this book, there was a boxwood tablet (*πινακιον πυξιον*), wherein every one was to set down of what *demos* he was, to-

\* I here follow Rous: but it only applies to Ionian Greece.

gether with the name of his father. Females were not registered before the time of marriage. If the father became old or necessitous, they were bound to maintain *him* (γηροδοσκειν); and this alimony they were also bound to extend to persons who had brought them up. If a father had also been for any time abroad, the daughters, upon his return, presently washed his feet, and anointed and kissed them; a practice which explains a ceremony used to our Saviour. They were also to be at the expense of burial. If a man was childless, he might adopt a stranger or bastard; but his estate passed to the heir-at-law, either by descent (κατα γένος), or by will (κατα διαθήκη). The validity of a will depended upon its being made by a testator of sound understanding, not under duress or persuasion of his wife, and without children; but he could not disinherit his male child or children, the latter becoming *ισομοιροι*, *copartners*. If he died intestate, the next male succeeded; if he had only a daughter, she was *επικληρος* or *μονοκληρος*, sole heir, and the next of kin was to marry her. A woman or a boy could not devise more than six bushels of barley, or its value (*μεδιμνον κριθων*). The will was proved before a *prætor*, says Rous, and the process was called: *κληρουν τον κληρον, α επιδικασασθαι του κληρου*; and to lodge a *caveat*, *παρακαταβαλλειν*.\* The Spartan education consisted of gymnastics, and endurance of hardships, with a slight tincture of music, dancing, and versification. Where people have active minds, and little to do, they become gossips; and also persons to whom private life has few or no charms. The Greeks were early risers, fond of exercise; constant frequenters of public walks and lounges; immeasurable talkers; passionate newsmongers; fond to excess of baths, festivals, spectacles, nicknames, music, dances, symposia, clubs,—every thing, in short, that supplied a social stimulus to the senses or the mind.†

Theophrastus, who lived in the time of Alexander,

\* Rous.

† Patterson's Prize Essay, 116.

gives us the following curious distinctions of peculiar Greek characters : —

*Greek vulgarity* (δυσχερεία).—This consisted in long nails, dirty teeth, bad dressing, wiping the nose at meals, talking while eating, eructation during drinking, using rancid oil in the baths ; speaking foully to his mother when taking an augury ; dropping the patera while making vows or libations, and laughing when he took it up ; clapping the hands, and imitating the tune of musicians, and then scolding them for not having finished sooner ; and, when at table, spitting upon the waiter.

*A Greek bore* (περι ανδίας) waked people for idle gossip when they were just going to sleep ; talked about the physic which he had taken, during meals ; talked about water being cold in the cistern ; the garden vegetables tender, and his house as open as an inn.

*A Greek fop* (περι μικροφιλοτιμίας).—When invited to a dinner party, he strove to sit near the host, bragged that he had taken his son to Delphi, there to deposit his hair ; that he had taken care to have a black footman ; and struggled, when he had money to pay, to have it in new coin. If he sacrificed an ox, he placed the fore part of the head, crowned with large garlands, before his doors, to let visitors know that he had made such a sacrifice ; when he led a procession with other horsemen, he delivered his usual dress to a boy, to carry home, and went in full costume to the agora, and walked there. If his little dog died, he erected a monument for him, inscribed "*Surculus, the Maltese*" (Maltese shocks being the favourite dogs). If he had only offered a brass ring to Æsculapius, he would rub it crowned, and every day anoint himself. He attended the Prytaneum, when a suit was made, that he might communicate it to the people, crowned, and in the white dress used at sacrifices ; and when he came home, told his wife that matters went on very prosperously.

*Greek meanness* (περι ανελευθερίας).—The person

here characterised would, upon gaining a prize in tragedy, offer a wooden fillet to Æsculapius, upon which his name was inscribed ; when a requisition was made for the exigencies of the state, he would be silent, or sneak off ; when he made a sacrifice at the nuptials of a daughter, he would sell all the meat of the victim, except such as was destined to sacred purposes ; and hire waiters at board wages. As commander of a trireme, he would use the mats allowed to the common men to sleep upon the benches rather than use his own ; when he bought any meat and vegetables in the market, he would bring them home himself ; and, when he sent a garment to be cleaned would remain in his house ; when a distressed friend requested a contribution, he would avoid him. Instead of buying female slaves to attend his wife when she went out, he would only hire persons ; and when he got up in a morning would clean the house, make the beds himself, and turn the poor pallium which he usually wore.

*Greek ostentation* (περι αλαζωνείας). — This character applies to persons who attended the exchange (δυσγυα) at Port Piræus, and boasted to strangers what money they had gained by foreign trade and usury ; and, if he picked up a companion on the road, stated that he had been in the campaign with Alexander, and brought back numerous gemmed drinking-cups ; and contended with others that Asiatic artificers were superior to those of Europe. Afterwards, he would pretend that he had received letters from Antipater, inviting him to Macedonia ; that he had an offer of exporting a large quantity of timber, but declined it to avoid envy ; had given enormous sums to the poor, and had fitted out three triremes, and been at other expense for the public service. Going to persons who sold fine horses, he would pretend to buy ; and also to the tents in the fairs of those who had goods ; would order garments worth two talents to be exhibited, and then would scold his attendant boy for not bringing money with him. Lastly, though he lived in a rented house,

he would acquaint persons, who did not know it, that it was the house left to him by his father, and that he had thoughts of selling it, because it was too small for the company which he kept.

*The Greek proud man* (περι υπερηθειας) reminded people of favours conferred even in the streets, ordered people on business to come early in the morning; hung his head down in the streets, not to speak to his acquaintance; and, if he invited friends to his table, would not make one of the company, but order a dependant to take his place. When he went to make a visit, he would send a messenger before, to announce it, and would see no one when he was either anointing himself or taking food; ordered a boy to keep his accounts, and, when he had made up the sum, not to deduct what he owed to others; and when he wrote letters, instead of "You will do me a kindness if," &c., put "I wish this to be done," "see that it be not done otherwise," and "as soon as possible."

*The Greek coward* (περι δουλιας) is much like Falstaff.

There are other characters, of which counterparts may be found in modern eras.

*Trades and manufactures.* — Both the Greeks and Romans carried on trades by means of employing large numbers of slaves as journeymen. We meet with these *ασκαυλαι*, makers of leathern bottles, *bankers*, *money-changers*, or *usurers* (τραπεζιταις); *barbers*, some of them females (κουρευτριαι), and *barber-surgeons*, whose shops were lounging-places for news; *basket-makers*; *blacksmiths*, who appear to have worked half-naked and had a peculiar cap; *braziers*, *butchers*, of which there were none before the Trojan war, the heroes in Homer cutting up their own meat, afterwards persons who sold meat by the scales; *capon-cutters*, a Delian invention, according to Athenæus; *carpenters*; *cooks*, men, sometimes hired by the day at a great price; *coppersmiths*; *cotton*, *manufacturers*, or dealers in; *couriers*, both on foot and horseback; *dyers*; *enamellers*; *eunuchs*, the Delians being famous for the operation; *factors*;

*farmers ; felt-makers ; fishermen and fishmongers ; flax-dressers ; founders ; fresco painters ; fullers ; gilders ; glass manufacturers ; globe-makers*, the globes being made of glass ; *glue-makers ; goldsmiths ; gardeners*, who also understood grafting ; *grooms*, before the invention of stirrups, servants (called ἀναβόλαις) used to assist their masters in mounting ; *haircloth manufacturers ; horse-breakers*, anciently a title of honour, because it was a practice of heroes, kings, and great men ; *joiners ; market, clerks of*, ἐπιμεληται, who attended to the weights, measures, and qualities of the goods, like the Roman ædiles ; *midwives ; mountebanks*, of various kinds—the οχλαγωγοί, or *agyrtae*, who by fine speeches assembled mobs ; and others who mounted upon a stage to puff and sell their remedies, or sat in a shop so to do. There were also tumblers, rope-dancers, jugglers, &c., but the most followed were fortune-tellers, who chiefly consisted of Chaldeans, Arabs, Egyptians, and Jews. Plutarch notes that they used very affected gesticulations. *Oilmen ; painters ; paper and parchment makers ; pastry-cooks ; perfumers ; pilots*, a profession of high repute ; *porters ; potters ; poulturers ; prison-keepers ; private tutors ; quack doctors ; readers*, ἀναγνώσται, and the Roman *lectores*, or *a studiis*, persons taught to read well by masters, called *prælectores*. Their office was to read to their masters during dinner, at night when they could not sleep, or at other times. *Shepherds ; tanners ; watchmen*, upon towers ; *wax-chandlers ; weavers*. Rous thus describes the process \* :—“ ξαντική, the teezing (shall I say) or the carding of the wooll ? or στημονπηχή, when they went to spinne out the στημων, or *stamen*, and διαζέσθαι (as they called it), to divide it and part it from the rest of the wooll ; or, last of all, at ὑφαντική, the weaving and joining the στημονες together, with the help of the κίρκις (the *pecten*) or the sley, like a comb ; and the αγνυθες, or the λεία, smooth stones (like our

\* There are far more numerous terms, applied to weaving, than those used by Rous.

smooth lace sticks, that they might not weare), which hung at the end of the threds. The posture in weaving was more anciently standing; but at length (when they were weary) it came to sitting, with the Romans at least, excepting when they made plain work, *reita*, as the Latines called it, downe right with one thred a crosse and no more; for there was *ποικιλτική* too, and a great deale of variety in some workes, as well as several sorts of workes in the trade." *Wine merchants; woollen-drapers*, and other trades.

The furniture, tools, and utensils of the Greeks are ascertained, according to Pliny's rule, adopted by succeeding ages, by the mention of them in Homer; but the catalogue to be deduced from that poet is incomplete, and is chiefly supplied by the vocabulary of Pollux. Unfortunately, the remains of Grecian monuments are too scanty for determination of their forms, unless we admit the specimens upon the Etruscan vases to be similar, and that hypothesis is apparently well founded.

The following are articles which appear in Greek authors, though it is impracticable to give their precise forms.

*Furniture.*—This consisted of *chairs*<sup>1</sup> (among them an easy one, *κλισμός*), *bedsteads*<sup>2</sup>, with feather beds of goose feathers<sup>3</sup>, pillows of the same<sup>4</sup>, sheep or lamb skins for blankets<sup>5</sup>, rugs<sup>6</sup>, &c., one kind of beds, at least, having apparently musquito curtains<sup>7</sup>, others, being low, of a very humble kind.<sup>8</sup>

*Tables*, for dining and meals<sup>9</sup>, a particular kind for playing the cottabus<sup>10</sup>, and tables for counting<sup>11</sup>, and the *calcule*<sup>12</sup> *candelabra* (*λυχνία*), *curtains*<sup>13</sup>, *hangings*, *car-*

<sup>1</sup> ἔδρα, ἐξέδρα, &c.

<sup>9</sup> τραπεζα, &c.

<sup>2</sup> κλίνη, κοιτή, &c.

<sup>10</sup> πλαστιγξ. The cottabus

<sup>3</sup> χρυσοπλουματα.

was a game played with the remains of the wine, and requires

<sup>4</sup> προσκεφαλαια.

a long description.

<sup>5</sup> στρωσις — κωια — κυς.

<sup>11</sup> ἀβακιον.

<sup>6</sup> ἀμφιταπαι.

<sup>12</sup> τηλια.

<sup>7</sup> κωνυπειον.

<sup>13</sup> αυλαια.

<sup>8</sup> ασκωντης, κραββατος, χα-

λανδρον, &c.

*petæ*<sup>14</sup>, perhaps *sofas*<sup>15</sup>; *footstools*<sup>16</sup>; *chafing-dishes*<sup>17</sup>; *lamps*; *close-stools*<sup>18</sup> and *chamber-pots*<sup>19</sup>; *chests* of basketwork (*mostly*) of leather, or wood, among them the *κοίτις*, in which women's things were kept. Fly-traps<sup>20</sup>; *birdcages*<sup>21</sup>; tripods; *vases* in great numbers and of various fashions, and stands for them.<sup>22</sup>

The household utensils were *bags*, some of leather<sup>23</sup>, bakers' peels<sup>24</sup>; baskets made of twigs, cane reeds, or rushes<sup>25</sup>; basins, for washing the feet, hands, &c.<sup>26</sup>, some of wood<sup>27</sup>; bellows<sup>28</sup>; boxes (see chests, Beckman says, like the modern); bells; bread-chest<sup>29</sup>; bread-moulds<sup>30</sup>; brooms and brushes<sup>31</sup>; caldrons<sup>32</sup>; chafing-dishes<sup>33</sup>; cisterns<sup>34</sup>; clepsydræ or water-clocks; cocks for discharging liquids<sup>35</sup>; colanders<sup>36</sup>; combs made of boxwood have been found in tombs; cords<sup>37</sup>; cheese-rasps or knives<sup>38</sup>; Dutch-ovens, or an assimilation<sup>39</sup>; fagots<sup>40</sup>; frying-pans<sup>41</sup>; funnels<sup>42</sup>; hand-mills<sup>43</sup>; honey-vessel<sup>44</sup>; hooks for drawing water out of wells<sup>45</sup>; handles or frames for drying things<sup>46</sup>; keys<sup>47</sup>, some of wood<sup>48</sup>; knives; ladles for soup<sup>49</sup>; lamps, synonymous also with lanterns, *φανός*; locks and

<sup>14</sup> περιστρωματα.

<sup>15</sup> κλισμος, σκιμυδιον.

<sup>16</sup> βαθρον.

<sup>17</sup> εσχάρης — πυραννιοι a  
sort in which hot coals were  
put upon a table.

<sup>18</sup> λασανον.

<sup>19</sup> αμης.

<sup>20</sup> σοθης.

<sup>21</sup> κλυθος.

<sup>22</sup> πραπεξοφορον.

<sup>23</sup> δορος.

<sup>24</sup> ῥημος.

<sup>25</sup> καλάμος, σαργανη, ὕπυρις,  
κονεον.

<sup>26</sup> πελυξ, ασαμινθος.

<sup>27</sup> χερνιβον, χερνιψ, ποδανιπ-  
τηρ.

<sup>28</sup> φυσσα, κορυκος.

<sup>29</sup> σιπνη.

<sup>30</sup> πλαθανον.

<sup>31</sup> κορημα, σαρος, σαρωθρον

<sup>32</sup> χαλκειον.

<sup>33</sup> πυραννιον.

<sup>34</sup> λακκος.

<sup>35</sup> επιστομιον.

<sup>36</sup> ῥημος.

<sup>37</sup> λιγον.

<sup>38</sup> κοθυλις.

<sup>39</sup> κλιβανος.

<sup>40</sup> δεταλ.

<sup>41</sup> τηγανον.

<sup>42</sup> χεανη.

<sup>43</sup> χειρομυλον.

<sup>44</sup> σκαφίς.

<sup>45</sup> ἄρπαγη.

<sup>46</sup> ταρσος, οὐ ταῖρος.

<sup>47</sup> κλεις.

<sup>48</sup> πασσαλισκος, πασσαλος.

<sup>49</sup> ζυμερσις.

bolts<sup>50</sup>, of most clumsy construction; mats<sup>51</sup>; measures or rules<sup>52</sup>; milk-pails<sup>53</sup>; mirrors<sup>54</sup>; mortars, with pestles, and spoons, with which the bruised matter was taken out<sup>55</sup>; mouse-traps<sup>56</sup>; napkins<sup>57</sup> or towels, some for the feet (ποδεκμαγια); nets<sup>58</sup>; oil-jars<sup>59</sup>; parchment<sup>60</sup>; panniers<sup>61</sup>; portmanteaus<sup>62</sup>; presses<sup>63</sup>; ropes<sup>64</sup>, some twisted<sup>65</sup>, others made of bulls' hides<sup>66</sup>; scales<sup>67</sup>; scrips<sup>68</sup>; sieves<sup>69</sup>; spits<sup>70</sup>, some large ones, for roasting oxen<sup>71</sup>, others with five points (πεμπωβολα) steelyards<sup>72</sup>; scrinia for holding rolls<sup>73</sup>; spoons<sup>74</sup>; sponges<sup>75</sup>; table-books, or tablets of boxwood (for writing upon when smeared with wax)<sup>76</sup>; tongs for the fire<sup>77</sup>; torches<sup>78</sup>; traps<sup>79</sup>, one of them (ακριδοθηρα) to catch locusts; trays<sup>80</sup>; trenchers (πινακις); troughs<sup>81</sup>, some for kneading dough<sup>82</sup>; vessels for salting meat (br̄zen)<sup>83</sup>, for carrying food, keeping milk, or making cheese<sup>84</sup>; wooden-hooped cans for drinking-vessels, still in use in some of our farm-houses<sup>85</sup>; and, no doubt, other utensils, not here enumerated.

*Tools.* — Homer's account of these, as of the preceding articles, is known, by comparison with the far more numerous terms which occur in various authors, to

<sup>50</sup> βαλανος, βαλαναγρα, κλα-  
ορον, κλειθρον, μαγγανον, &c.

<sup>51</sup> ψιαθος.

<sup>52</sup> σταθμη.

<sup>53</sup> σκαφίς; for use in mak-  
ing cheese ταλαρος.

<sup>54</sup> εσοπτρον, θυνεια.

<sup>55</sup> λινδος, όλμος, κοπανον,  
δοιδυξ.

<sup>56</sup> γαλααγρα, ιπρος.

<sup>57</sup> χειριμακτρον.

<sup>58</sup> γριπος, γριφος.

<sup>59</sup> καμψακης.

<sup>60</sup> διφθερα.

<sup>61</sup> επισαγμα.

<sup>62</sup> ρισκος.

<sup>63</sup> λυγος.

<sup>64</sup> καμπανον.

<sup>65</sup> ιλλας.

<sup>66</sup> ιμας.

<sup>67</sup> σταχανη, τρυτανη.

<sup>68</sup> καδιον.

<sup>69</sup> ηθμος, κοσκινον.

<sup>70</sup> υβελος.

<sup>71</sup> βεκολοι υβελοι.

<sup>72</sup> σηκος ξυγαι, ξυγοι, σταθ-  
μος.

<sup>73</sup> κρισκανα.

<sup>74</sup> σπαθη.

<sup>75</sup> σπογγια.

<sup>76</sup> πυξιων.

<sup>77</sup> πυραγρα.

<sup>78</sup> δαδιον, πυριον, πυρκος.

<sup>79</sup> παπαγίς.

<sup>80</sup> παραθεμα, ξαθαρειον.

<sup>81</sup> κυψιλις, σκαφίς.

<sup>82</sup> μαγίς, μακτρα.

<sup>83</sup> ταιαγρα.

<sup>84</sup> ταλαρος.

<sup>85</sup> κυλιξ ρυπαλωτη.

be incomplete. The following articles occur; the explanations are those of lexicographers only: — we cannot answer for the correct Greek.

*Ax*<sup>86</sup>, to which are to be added a crooked one for ship building (κινδύλα), and another with two blades (κυσήλι:). The English word *stale*, for the wooden handle, seems to have been derived from the Greek στελεα, of the same acceptation; *anvil*, fixed upon a block of wood, as now<sup>87</sup>; *auger*<sup>88</sup>; *awl*<sup>89</sup>; *beetle*, to bruise olives at the press<sup>90</sup>; *chisel* (for stone)<sup>91</sup>; *chains* (twisted)<sup>92</sup>; *cobbler's wax*<sup>93</sup>; *cords*<sup>94</sup>; *crook*, shepherd's<sup>95</sup>, curved at top<sup>96</sup>; *crucible*<sup>97</sup>; *fishing-rods*<sup>98</sup> (they were slender, in order to be elastic, and not shade the water too much; shorter than the modern, and only of one joint); *fishing-lines* (Aristotle and others mention their construction of horse-hair, especially of stallions; the lower part strengthened by a small hollow piece of horn, apparently intended to prevent the fish biting the line in two. There were not to be too many knots in the line, and the hairs next the hook were, for deception's sake, white); *fishing-hooks*, some were round, and others straight; *fishing-nets* had corks and leaden weights annexed to them; *fish-spears*, mentioned in Job<sup>99</sup>, of two and three points<sup>100</sup> (travellers have recorded the skill of the modern Greeks in this practice); *fleam*<sup>1</sup>; *forge*<sup>2</sup>; *fork*, three-pronged, as a dung-fork<sup>3</sup>; *foundery*<sup>4</sup>; *fowling art*, in which birdlime and springes were used<sup>5</sup>, and various inge-

<sup>86</sup> αξιμη, κοπις, σμιλη, ξυ-  
ηλη, πελεκυς, σαγαρις, σκεπα-  
ρουν.

<sup>87</sup> ακμων ακμοθετος.

<sup>88</sup> τερεβρα.

<sup>89</sup> ήλος, σουβλιον.

<sup>90</sup> κωταλις.

<sup>91</sup> τυκος et τυχος. The  
lexica describe it as a polish-  
ing-tool.

<sup>92</sup> ιλλαξ.

<sup>93</sup> πιασα όγρα.

<sup>94</sup> άρπεδον.

<sup>95</sup> λαιον.

<sup>96</sup> καλαυροψ.

<sup>97</sup> χωνη.

<sup>98</sup> καλαμις.

<sup>99</sup> Ency. Antiq.

<sup>100</sup> ιχθυοκεντρων, δικρανος,  
τριανα.

<sup>1</sup> φλεβοτομον, μαχαιρις.

<sup>2</sup> πυρεια.

<sup>3</sup> κριαγρια.

<sup>4</sup> χοανος.

<sup>5</sup> ιξος, ιξυτηριον, ορνιθοθηρα.

nious practices, similar to those of the middle ages, previous to the invention of gunpowder; *fuller's instrument* <sup>6</sup>, quære, a wooden roller for pressing and beating the cloth? for such was anciently used; *gimlet* <sup>7</sup>; *glue* <sup>8</sup>; *goad* for oxen <sup>9</sup>; *haircloth* <sup>10</sup>; *hammer* <sup>11</sup>; *handles*, wooden, of tools <sup>12</sup>; *hoe*, or similar instrument <sup>13</sup>; *hurdles* of twigs <sup>14</sup>; *inlaying* <sup>15</sup>; *knives* of various kinds <sup>16</sup>; *leather* <sup>17</sup>, of ox-hide, of sheepskin, with the fleece on <sup>18</sup>; *levelling instrument for smoothing ground* <sup>19</sup>; *lever* <sup>20</sup>; *mallet* <sup>21</sup>; *mills* <sup>22</sup>, some driven by water <sup>23</sup>; *mortars*, used before mills <sup>24</sup>; *moulds* for bricks <sup>25</sup>; *nails* of bronze, &c. used for ornament <sup>26</sup>; *needles* <sup>27</sup>; *nets* <sup>28</sup>; *plasterer's tools* <sup>29</sup>; *pegs* <sup>30</sup>; *pincers* <sup>31</sup>; *plating metals* <sup>32</sup>; *plates*, ductile <sup>33</sup>; *plough* <sup>34</sup>; *polishing tools* <sup>35</sup>; *press*, and for wine and oil <sup>36</sup>; *pitchforks* <sup>37</sup>; *rollers* <sup>38</sup>; *ropes* <sup>39</sup>, a thick one, καμῖλος; *razors* <sup>40</sup>; *saws* <sup>41</sup>; *sickles* <sup>42</sup>; *siphon*, evacuation by <sup>43</sup>; *shoemakers' lusts* <sup>44</sup>; *scrapping-tools* <sup>45</sup>; *spade* <sup>46</sup>; *style* for writing <sup>47</sup>; *tablets*

- 6 στροβευῶ.  
7 τερετριον.  
8 κολλη.  
9 βουβλεξ, ὄρηξ.  
10 σακκος.  
11 ραιστηρ, σφυρα.  
12 αλυη.  
13 σκαλῖς, σκαλιστηριον.  
14 ῥιν.  
15 φιβλημα.  
16 φοτισ, σμιλη, μαυλις;  
ρα, στυνηρ, φασγανον.  
17 βερσα, φερμα.  
18 νακος, οα, &c.  
19 λιστρον.  
20 μοχλος, οχεος, οχλευς.  
21 αιρα.  
22 μυλη.  
23 ὑδραλητης.  
24 ἀπερος.  
25 πλαισιον.  
26 γυμφος, ἡλος, ἀμφικαλος.  
27 ραφίς, κυαρ.

- 28 δικτυον ισαγνη.  
29 μιλιγδος.  
30 πασσαλος, χειμαρος.  
31 χηλη  
32 επαργυρος.  
33 ελασμα.  
34 αρατρον; the share, ευλακα,  
εθνις οφνις; the wood that the  
share was set in, στυλακα.  
35 καταξω.  
36 λυγος, προληνιον.  
37 δικελλαι.  
38 κυλινδρος, κυλισμα.  
39 ἀρπεδονη, επιπαστρον.  
40 μαχαιρις, ξυρος.  
41 πριον.  
42 ἄρη.  
43 ακριφωνιζω.  
44 κρηπις.  
45 ξυστρον.  
46 ευλακα, μαυλη, σκαπανη.  
47 σκαριφος.

on walls <sup>48</sup>; *turning-lathe* <sup>49</sup>; *water-mill* <sup>50</sup>; *wedge* <sup>51</sup>; *whetstone* <sup>52</sup>; *whip* <sup>53</sup>; *winnowing-fan*.<sup>54</sup>

In thus giving a dry catalogue, the most effectual means of knowing the real state of the mechanical arts is best exhibited, because the names of things demonstrate their existence; and, where they continue to exist, have tolerably correct appropriations; but, where they are only intelligible by local knowledge, the explanations of lexicographers and commentators are either erroneous or unsatisfactory. The remains of ancient art show that there existed mechanical powers of raising large weights, and effecting superb architecture, by processes extremely simple, which imply rather labour than mechanism; more dependence upon taste than artificial aid; though tools, without machinery, cannot produce the perfection evident in many remains; but of such machinery no verbal description can give clear conceptions. We only know that the potter's and spinning wheel, the turning lathe, and the wheel and axle, in building, did exist. Many Lacedæmonian manufactures were used in the rest of Greece. The Laconian cothion, a drinking-vessel used in camps and marches, [an earthen vase,] the bowl, the goblet, tables, seats, elbow chairs, doors, and cars; famous steel, keys, swords, helmets, axes, and other axes of iron, shoes, mantles, and woollen garments, besides embossed works, and those of the brass foundery.\* The modern customs of the East may and do confer a knowledge of many processes in detail, but, except in particular instances, we have no accounts, however improving and useful such information might be in aid of various manufactures of our own. In illustration of these remarks we have only to state, that Sidonian women are commemorated by Homer for excellence in embroidery;

<sup>48</sup> παραπηγματα.

<sup>49</sup> κυκλοτερης, τρονος.

<sup>50</sup> ὕδραλης.

<sup>51</sup> σφήν, ἡσμφος.

<sup>52</sup> λιγδη.

<sup>53</sup> πλαστιγέ.

<sup>54</sup> πτυον, ῥιπίς, σκαφίον.

and it appears that a gentleman's servant, a native of Saïde (*olim* Sidon), wore a sort of tunic, covered, especially at the back and arms, with the closest embroidery and patches of variegated cloth. At Paros is still in use a pair of bellows, answering to Virgil's \* description. It consisted of two sheepskins, united by an iron pipe, introduced into the fire, which were alternately dilated with air and compressed by an Arab slave, who knelt above them.†

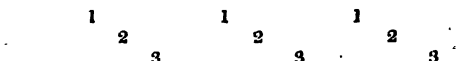
In nautical matters, the retention of ancient customs is still more apparent. Dr. Clarke observes, that the *fox*, or skull-cap, egg-shaped, like that on the figures of Ulysses, is still common in the Mediterranean; and from Winckelman it also appears that the costume of the modern sailors, a large surtout with a hood, resembles, except in the sleeves, that of the ancients. Mr. Emerson has also seen, in the construction of certain vessels, conformities to descriptions of Homer. The Greeks, in their ship-building, used the lightest kinds of wood, viz. ash, fir, pine, cypress, and plane; because they thought, that the lighter the vessels, the more swift they would be. Ancient are distinguished from modern ships, not only by difference of form, but by having no keel. The Romans had no shipping till after the first Punic war, A. U. C. 490; and the technical terms used by them being, almost without exception, Greek, show that their fashions were similar; and these are quite familiar. Oars are said to have preceded sails, and the Corinthians first introduced the use of many ranks of them. The ships of war were commonly *triremes*, although they were not limited to that class; for small vessels were frequently employed, because they could inflict damage and easily escape.‡ Vessels of war were in length eight times their breadth, while those used in commerce were shorter by one half. In some of the former (as the *pentecontoros* at least), the hold was partitioned into a large number of compartments, each

\* Georg. iv. l. 170.

† Emerson's Travels in the Egæan, ii. 31. 181.

‡ Mém. de l'Institut, iii. 144.

water-proof.\* The *triremes*, which were used for war, had their rowers disposed above each other obliquely, as in the following figure.



The form of these galleys, which is thought to be preserved in the chebecks, Greek vessels, and light feluccas still used in the Mediterranean, differed from our vessels, which have *tumble-home* sides, in the projection of the latter outwards. This arrangement made the use of oars easy and advantageous, and aided landing. Some of the ships of war, at least, had not only interior passages, but exterior shelves or ledges, large enough to place there ranks of combatants.† This, as well as the position of the rowers, is well delineated in the following woodcut, which represents one of the vessels used by Antony at the battle of Actium.

It has been noted, that the ancient navigation was limited to coasting, and it has been justly ascribed to their ignorance of the compass: but this was not the sole cause; their craft was of the construction adapted to rivers as well as seas. If they intended the vessels for *all* seas and some rivers, the length was five times the breadth; if only for *some* seas, six times; if only for lakes or limited gulphs, of considerable length.‡ The oars were worked by various numbers of men to each oar; and in the lower tiers, to prevent admission of water, the upper ends of the oars were enveloped in leathern bags.§ According to Athenæus, the length of the largest oars was that of the breadth of the vessel.|| When it was necessary to run one vessel alongside another, it appears that there was a mode, as is shown in the cut, of dropping the oars, in a pendulous form; close to the side; for the oars, being fastened to the row-lock, could not be drawn in.¶ The rowers did not

\* Mém. de l'Institut. iii. 145, 146.

† Id. 162.

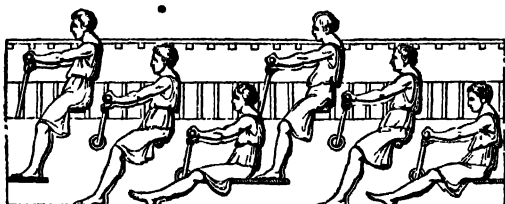
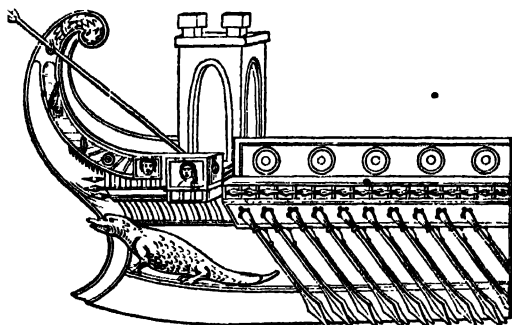
‡ Id. 156. seq.

† Id. 155, 156.

‡ Id. 168, 169.

¶ καθήκει, σκαλμός.

sit, but stood in an inclining position. The practice was directed by a person called *celeustes*, the Roman *hortator remigum*, who was placed in the middle of



them, and carried a staff, with which he gave the signal when his voice could not be heard. This signal was for the rowers to strike; and he encouraged them by a song or cry, called the *celeusma*. This was either sung by the rowers, or played upon instruments, or effected by a symphony of many or striking sonorous tones. Winckelman says, that ships disposed to battle had neither sails nor yards. It is known that the former were not used during action. The Greeks had also long and narrow boats\*, which one man rowed with two sculls.

\* αμφοτερις. — Enc. des Antiq.

*Sails*, said to have been the invention of Eolus, or Dædalus, were made of linen, hemp, rushes, broom, and leather, but from the time of Homer of linen; the forms various, and the colour usually white, but not always. According to Pliny, they were first placed one above another on the same mast, afterwards on the stern and prow. The rope by which the sail was stretched or loosened was called *πους*, because it was tied to the foot of the mast; a fashion which still obtains in regard to barges used upon navigable rivers. At first the Greeks only used sails with a favourable wind, but afterwards knew how to tack and manœuvre.

*Masts, &c.*—Homer mentions these, but not fixed; only put up as they were wanted. This appears upon the bas relief, denoting the building of the Argo, in the Townley collection. Aristotle and Eusebius show that ships had only one mast, but more are seen in gems. In one is a vessel for sailing without oars. Above the yard is a round top, where meet the cordage and a ladder of ropes. This kind of ship was called *corbita*, and the object of the top and rope ladders was for the ascent of armed men, to fight from thence by missiles; but the sailors, hence called *funambuli*, according to Ovid, climbed up, and let themselves down by a rope.\* Two scaffolds†—one at the prow, the other at the stern—preceded, for the station of combatants, decks‡, which were a Thasian invention, and an improvement, as well as a protection of the rowers beneath. In Hiero's ship, the fresh water was carried at the prow, in a conservatory made of planks and linen, coated with pitch. There was, too, a *well*, either emptied by the screw of Archimedes, or a kind of pump, or a plug (ἰσθῆς), which being drawn out, the water escaped. The rudders were a kind of oars, not like the modern; and sometimes there were two at the prow, and as many at the stern. The prows had beaks like a boar's head §, and an ornament above ||, bending towards the ship, and another at the

\* ——— Quo non alius conscendere summas

Ocyor antennis, præsensque rudente relabi.—*Metam.* l. iii. *De Naut. &c.*

† παραβλήματα. ‡ καταστρώματα. § παρμίσ. || ἀκροστολόν.

stern, inclined to the sea.\* Flags of different colours were occasionally used to distinguish the ships, and the points of the wind denoted by a moving Triton. The *parasema*, or symbol, which gave name to the ship, was placed at the prow, but the protecting deity had her statue at the stern. Some ships were inscribed with mottoes, as, "A prosperous voyage," &c.; and, for a defence against enemies, a piece of wood † was placed upon the edges. There was a kind of bowsprit, and the *κραιαί* ‡ were large beams, ironed at both ends, and suspended like the yards, which, when they came near, were swung like the ram, to destroy the enemy and pierce the vessel. We have a distinction of a ship with a blue prow. § Some ships have towers in them; and it is singular that the Lexica use the term *βασις*, both for a ship and royal towered house, though other authorities make it simply any thing enclosed like a boat as a tower, and deduce the term from *Bares*, a city of Egypt, where this ship was first built. || At night, the sailors used to sleep upon the benches; the *trierarch*, or commander, under a tent in the stern, upon a *stragula*, or kind of blanket; the *gubernator* having only a mat. The ships were drawn up to the inner docks by the aid of machines, called *ολκai*; and there was a communicating ditch (*ουρος*), by which they were conveyed to or from the sea. They were laid up under sheds, called ships' houses. ¶ The kinds of ships were various. It would be tedious to enumerate these; and it may be sufficient to say, that canoes\*\* and vessels covered with only leather †† accompany others, decked or undecked, and fitted for rowing or sailing, distinctly or unitedly; those of war being longer and narrower than merchant vessels. There were regular ship-builders and yards. ‡‡

The ships of the Greeks were divided into two kinds; *ships of war*, and *ships of burden*. The former (*μακραί νηες*; *επικωποι κωπηρη*), which Herodotus § § makes a Phoecean

\* The cheniscus † χιλισμα. ‡ Asseres. § *κυανοπρωρος*.  
 || Valpy. ¶ *νισσοικοι*. \*\* *μονοξύλα*. †† The *cymbæ autites*.  
 ‡‡ *καυτηγος, καυτηγιον*. § § Clio. l. 163.

invention, were galleys, though worked sometimes by sails, and had the further distinction of being beaked, and of a longer form. Among the Greeks, the ships of war were called *triremes*, whatever was the number of oars; and these Thucydides makes an invention of Amintodes, a Corinthian ship-builder; Clemens Alexandrinus, of the Sidonians. The ships of burden (ολκαδεις, φορτηγοι, στρογγυλαι) were not beaked, broader, worked by sails, or, when used as transports, towed. The ships of war were further distinguished by various engines and superstructions, of which representations are quite common. Unwieldy vessels were, however, deemed by the Greeks of very little use. There were other kinds of vessels; some partaking of both the characters described, as the *myoparones* or *phaseli*; and others half decked, or only half banks of oars, or for exploratory uses, or for tenders, or expedition, or adaptation to particular seas.

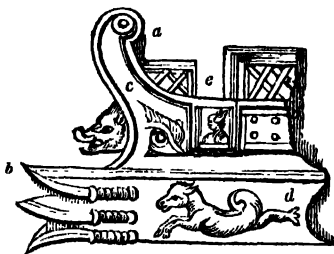
Decks (καταστρωματα) the whole length of the ship were invented by the Thasians. Before, there were only two scaffolds—one at the prow, the other at the stern—for combatants.

Dividing ships into 1. prow, 2. body, and 3. stern, the following will appear to be the chief characteristics:—

1. The prow. The beak or beaks (*rostra*) of bronze or iron, intended to sink the enemy's vessels, by piercing them between wind and water. Above this was a tablet inscribed with the name of the ship, πτυχis, between two eyes, because they were on the head of the vessel. Upon each side were two strong beams or boards (εποτιδες)\*, to defend the ship from the shock of the shore, and vessels of the enemy. The *acrostole* was an ornament bending towards the ship, elevated above the beak. Count Caylus says that the *acrostole* is still retained in the duck's neck of the Venetian gondolas: it is often represented upon coins, as a token of naval

\* A Syracusan invention, mentioned by Thucydides; but, according to Montfaucon (iv. 160.), not adopted by the Romans.

victory. The *παρρησιον* was a carved painted image, as now, to denote the name of the ship. The following figure, from Fabretti, will show these parts\* ; from which it will appear that the boar's head, sometimes confounded with the beak, was rather a further protection to the prow, as sometimes to the stern : — *a*, is

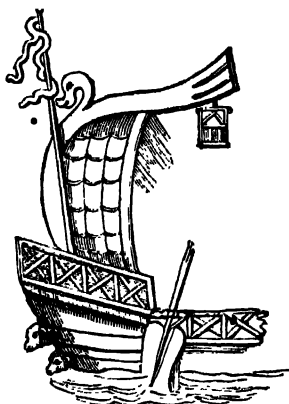


sometimes a goose's neck, the *χηνισκος*, because geese were considered fortunate omens to mariners, from swimming on the water ; *b*, the rostra ; *c*, the ophthalmoi ; *d*, the *παρρησιον*, whence the ship had its name — a sea-horse ; *e*, the figure of the tutelary deity (*tutela*), sometimes put upon both prow and stern ; merchants taking Mercury, soldiers Mars, or other deities favourable to the profession of the persons embarked.

In the *φαλκίς* (the modern *limber*) was the *antlia*, or pump, with its well. A succession of shelves on the sides formed the seats of the rowers, and there were spaces in the middle between, in the lower decks. The uppermost shelf, *θρανός*, was part of the higher deck, and formed our gangway. In the stern was the pilot's place, and the *αφλαστον*, or *aplustre*, to which was attached a round plate, called *ασπιδιον* or *ασπιδυκη* ; or flags differently coloured were there attached to distin-

\* Authors confound (says Montfaucon) the names of vessels, and verbal distinction is of little or no use. In the gems of Stosch, published by Winckelman, are to be found vessels of all kinds, too numerous to be here given, and unintelligible without plates.

guish the vessels, or a Triton to indicate the changes of the wind. The following figure exhibits, from the Trajan column, an *aplustre*, *cheniscus*, *banners*, *ship's lantern*, *helm*, and two *ram's heads* to protect the stern—all united.



The crews consisted of rowers; able seamen (ναυται), who had appropriate offices; ordinary seamen (μειστοναυται); and soldiers, who had heavier arms and armour (because they did not march), very long spears, and bladed poles to cut the ropes of the enemy's vessels, and so disable them. The officers were, an *admiral* (στολαρχος, ναυαρχος, or στρατηγος); *vice-admiral* (επιστολεως, or επιστολιαφορος); *captain* (τριηραρχος); a *manager of the business of the ship* (αρχικυβερνητα); a *master*, or pilot (κυβερνητης); a *boatswain* (πρωρευς or πρωρατης, by some called the κελυστης); a *musician*, to animate the rowers (τριηρυλλης); *quartermasters* (διοποι, ναοφυλακις), employed in sounding especially; *carpenters* (τοιχαρχοι); *pursers* (ταμιαι); *cooks*, or attendants on the fire (ισχαροι); and a *clerk*, who kept the ship's accounts (λογιστης, or γραμματις).

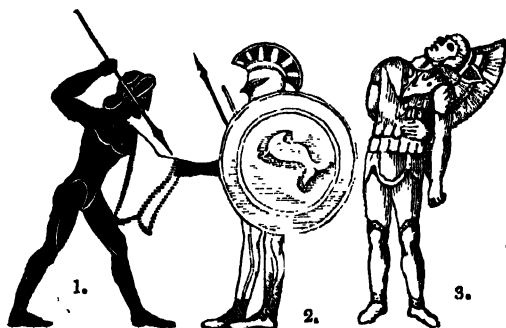
As the Greeks and Romans fought their ships in a similar manner, the tactics of naval engagements will be given in the next volume.

## CHAP. IV.

### ARMOUR AND ARMS.

**ARMOUR.**—The three following figures are of a date anterior to or coeval with the days of Homer:—

*Fig. 1.* is a light-armed man ( $\psi\iota\lambda\omicron\varsigma$ ); *fig. 2.* is an  $\acute{o}\pi\lambda\iota\tau\alpha$ , or heavy-armed man; *fig. 3.* exhibits the shoulder pieces, leathern cuirass with plates, and the boots ( $\kappa\iota\eta\mu\iota\delta\epsilon\iota\varsigma$ ) of Homer.



**ARMOUR**, says Dr. Meyrick, had its origin in Asiatic effeminacy. The warlike Europeans at first despised any other defence but the shield; but the Asiatic Greeks introduced this artificial shell, with other corruptions. The progressive kinds of armour appear to have been these:—1. skins; 2. hides, padded linen, matted stuff,

or wood ; 3. leather armour, with a rim of metal ; 4. plates or scales. Scaled armour distinguishes barbarians from Greeks or Romans.\* These positions shall now be illustrated by reference to the respective parts of armour. To begin with

HELMETS. — 1. The *skin-kind*, whence the Latin *galea*, from γαλην, γαλη, a weasel or cat. A helmet of this description appears in *fig. 1.* above, as well as in numerous others, where the lion's skin occurs, as the uniform of Homer's generals ; is a common costume of Hercules ; is mentioned by Virgil ; and was retained by the Romans, according to the Trajan column, for their *vexilliferi*, or standard-bearers. The fashion was Indian, Ethiopian, and Egyptian ; and Dr. Meyrick supposes that the mane with the ears erect gave birth to crests and tufts. Such a helmet appears in the following head,



with a rim of metal. The kinds of these helmets were the κυνη, dog's skin one, — ποτιμος κυων, the water dog, being the most common ; and there were the ικτιδη, weasel's skin ; ταυρινη, of bull's hide ; αλωπεκη, of the fox's skin ; λεονταπαινη, of the lion's skin. These skins were always worn with the hair on, and the teeth

were frequently placed grinning on their enemies. The savage ancestry of this custom is proved by its having been found among the ancient Mexicans. To these helmets were sometimes annexed the horns of animals ; for Ovid, in his combat of the Centaurs and Lapithæ, mentions one who wore a wolf's skin on his head, with ox horns annexed. 2. The helmet of wood or of leather, strained upon framework, is given in the cut above, *fig. 3.* ; one of them with a face guard, in *fig. 2.* The next kinds are, (1.) the περικεφαλη, with a nose-guard, and generally two leather flaps to protect the cheeks ; and these, when not used, were tucked up

\* Dr. Meyrick.

inwards. There are two in the British Museum.



(1.)

metal plates, turning upwards, if not wanted, by hinges. One of these helmets, with moveable cheek



(2.)

pieces, is here given, from count Caylus. The *κρανος* had sometimes a cock's feather stuck on each side.\* The next helmet was the *κορυς*, a very splendid kind: it had either a frontlet, termed *σφηνες*, or a projecting piece over the brow, *νισον*; and was embossed with quadrigæ, sphynxes, griffins, &c. It had feathers, ridges, and horsehair of mane and tail. The ridge was called *φαλος*; the horsehair ornament *λοφος*, sometimes, perhaps, composed of wires of gold or hair gilt, whence the *εθειραι χρυσται* of Homer; the ridge was of various metals; the crest painted, sometimes with feathers added, which occasionally supported the hair. Leathern scull-caps, slit open at the ears, and tied with thongs under the chin, and helmets made of twisted thongs, ornamented outside with boars' teeth: under them a woollen cap. After the time of Alexander the Great, common soldiers had only small crests, chieftains plumes or two crests (*αμφιπαλος*), three

\* See Montfaucon on a Camp, vol. v. pl. cxvii.

(*τροφαλεια*), four (*τετραφαλος*): cows' and goats' horns were worn; and hence the *τριχυσ*, or crest itself, was sometimes called *κερας*. Mr. Hope\* mentions helmets, which had *εξοχαι*, *eminences*, these were called *στεφανη*. The Macedonian *causia* had brims, like a *petasus*, the hat worn by Mercury.† Thus Dr. Meyrick.‡ The helmet with the fixed visor, which required being thrown back in the whole, in order to uncover the face §, fell very early into disuse, and never appears in Roman figures. Some singular helmets, with aigrettes, plumes, wings, horns, double crests, and double check-pieces, are ancient, being seen on the Hamilton vases; while others, with

fantastical additions, and overloaded crests, are either in the main barbarian, or subsequent to the removal of the seat of empire to Constantinople.||



The body armour consisted of *tunics*, *cuirasses*, *mitrees*, *thoraces*, *girdles*, and *arm-pieces*. The tunic in Strutt's bronze Etruscan warrior is short, having no skirts below the girdle. It seems to have been made of stiff and rigid leather, but has only one sleeve of that material;

the right arm, for the use of the sword, being apparently wrapped in folded linen.

*Cuirasses* appear to have been introduced by Philomænes among the Achæan horse, that they might be enabled to use lighter shields and lances. Those of the ancient Greeks consisted of back and breast pieces with lambrequines, *i. e.* pendent straps hanging over the thighs. Strutt has made the *thorax* and *cuirass* synonymous, but the figure which he gives is similar to one on the Hamilton vases. In the picture of the Sack of Troy, by Polygnotus, upon an altar, is a cuirass com-

\* *Costumes*, pl lxxxvi.

† Goltz, pl xxx.

‡ *Armour*, *Introd.* xxiv.—xxvi.

§ See Mr. Hope's *Costumes*, pl lxxiii. lxxv.

|| Mongez, *Réc. d'Antiq.* 21. 25.

posed of breast and back pieces of bronze, fastened by buckles. Some cuirasses consisted of folded linen, or cloth, felt tempered with salt and vinegar. — See *Lipsius, lib. iii. de Milit. Rom.*



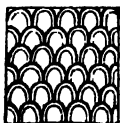
*Mitres*, accompanied with gorgets. These were made of padded wool, covered either with flat rings or square pieces of brass, and fastened at the sides. In this state it was cut round at the loins; but that in the time of Pericles followed the line of the abdomen, and was probably of leather, without metal plates. Sometimes, in front of it was placed another breast-piece; but this only when the thorax did not wholly cover the chest.\*

*Thoraces*.—The body, says Rous†, was protected by three pieces of armour;—the *thorax*, which reached from the shoulders to the navel; the *hemithoracion*, which covered half the breast; and the *zoma*, which reached from the navel to the knees. Dr. Meyrick says the Jews had pectorals, the “coats of mail” of our translation of the Bible: probably first of linen, but afterwards of plates of metal, and called *thoraces*. They were first changed into brazen thoraces by the Persians. Those of Homer and the Greeks he con-

\* Meyrick.

† 321.

ceives to have been large breast-plates of brass, leather, or some other appropriate material, to which the shoulder-guards (see the last cut) were connected at the back. The thorax varied in its form: sometimes, as a gorget, it entirely protected the chest, folding over the upper part of the mitree, and covering each shoulder-blade behind; sometimes it guarded the upper part of the back, and the whole of the chest.\* The middle part was called γυαλα, and the extreme parts πτερυγες; and these were either fastened by a cord from each to a ring below, or put on a kind of button. The complete *thorax* was the most ancient, and borrowed from the Persians or Egyptians; but the ἡμιθώρακιον, or half-thorax [said by Polyænus to have been much used by the soldiers of Alexander], though it covered the chest, and was open between the shoulder-blades, often occurs: the most ancient were of padded linen. They were also of brass, iron, and other metals [when in one piece, says Rous, στατος χιτων], presumed† to have been the χαλκοχιτωνις of Homer; and leather and iron; the latter part being probably a collar‡ of linen, covered with scales and flat rings: in these cases they were called θώρακες αλυσιδωτοι, thoraces of chain-work; λεπιδωτοι, scaled; φολιδωτοι, plumated, &c.; and occur in Mr. Hope's Costumes.§ Αλυσιδωτοι, therefore, which literally means indissoluble, and thence expressed chain-work, probably consisted of several rows of rings, fastened into each other, and stitched upon linen. Two such, of the size of large curtain rings, may be seen, of brass, in the British Museum. The *lorica hamata* of



the Romans appears to have been of rings, cut through in one part, and hooked into linen cuirasses. The Greek one§ seems to have been of this kind, and the rings are placed like mitred armour of the twelfth century, which was this. Pausanias

\* All these distinctions may be seen in Meyrick's Armour, i. pl. xv.

† See Hope's Costumes, pl. lxvi.

‡ Pl. xlvii.

§ Meyrick, pl. iv. f. 19.

mentions a brazen thorax, thick set with hooks, turned upwards.\*

*Girdles.*—The Greek girdle (ζώνη), very rich and varied, bound the armour together, whence ζωνεσσαι became a general word to imply putting on armour. In Homer, the girdle was not worn directly above the loins, but just below the chest, as in Hamilton's Etruscan Antiquities.†

*Arm-pieces.*—The arms of the early Greek warriors are padded (see a preceding cut); but in later ages appear naked.

*Shields.*—These were at first made of basket-work; to which succeeded light wood; but the most usual material was ox-leather, covered with metal plates. The cavalry of the first era used a long shield, but Philomenes introduced a round light one, not wider than absolutely necessary to cover the body. The infantry at first used oblong shields, fiddle-shaped; but Philopœmen changed them to the Argolick shield. The original Greek shield was, however, the ασπίς [see the middle figure at the beginning of the chapter], a perfect circle, made of several folds of leather, covered with plates of metal, laid one over the other, and about three feet in diameter, in order to reach from the neck to the calf of the leg; on which account Homer calls them αμφιβροτας and ποδνηκεις; the warriors often, by kneeling down, and bending their heads, concealing themselves behind them.‡ The heavy armed infantry and charioteers used this shield. These shields were convex. This part was termed αντηξ, and edged with a broad flat rim called περιφερια or κυκλος, the circumference or circle; and the edge of this was denominated ιτις, the extremity: in this ιτις, or border, according to Rous, were κρηχρωματαξ, little holes to see through. The centre had on it a projecting convex part, called ομφαλος and μισομφαλον, from its resemblance to the navel; upon this was sometimes placed another pro-

\* Meyrick, pl. xxvii. & xxix.

† See Hope's Costumes, i. pl. lxvi.

‡ Vol. iv. pl. xxx.

§ Archæol. Attic. 330.

jection, termed *επομφαλιον*, useful in glancing off missiles, and bearing down enemies. The head of Medusa formed the *umbo* of the shields of Hector, Agamemnon, and Minerva. Upon a Florentine gem, this head is so enlarged as to make nearly the whole convex surface. There were other subjects, as Pegasus, &c.\* The heavy armed infantry and charioteers used this shield. The cavalry had the *λαισθιον*, a much lighter and smaller round shield, composed of a hide with the hair on. Müller thinks that the *λαισθια πτερύοντα* of Homer resembled the shields, furnished with leathern fringes, or wings, represented on vases†, as in Tischbein (iv. 51.) The light infantry used the *peltu*. (See below, *fig.* 2, 3, 4.) The *γερρον* or *γερεα*, otherwise the Bæotian buckler, fiddle-shaped (see below, *fig.* 1.), and the *thureos*, oblong, which resembled a gate, with the top



rounded convex, and a hole in the middle.‡ At first, there was no other mode of carrying the shield, but by a piece of leather suspended from the neck, over the left shoulder; Eustathius says, a leathern thong, or a brass plate: this apparatus often appears upon the Etruscan monuments. The Carians, says Herodotus, invented handles: this invention consisted of a band of metal, under which passed the arm; it was called *οχανον*, or *οχανη*. The hand grasped one of the *κανονες*, rings, on the interior edge, for which were substituted, sometimes, cords attached to little rings, and called *πορπακες*, two of which crossed the arm, while a handle was held in the hand.§ Müller says, from Aristophanes, that the *πορπαξ* was all that was most essential for managing

\* Gori Mus. Etrusc. i. 31. Monum. Antich. No. 136. &c.

† Doriani, ii. 261.

‡ Meyrick, xxi. &c.

§ Id. xxxi. Hope's Costumes, pl. lxvii. civ. Eustath. H. 2. 124.

the shield; and that the *τελαμων*, or thong, could be easily procured, so that it was considered as an appendage to the *πορπαξ*.<sup>\*</sup> When, after war the shields were suspended in the temples, the handles were taken away, to prevent their being of service in sedition. The Carians, says Herodotus, also introduced symbolic or ornamental figures. The Peloponnesians engraved their initials upon the shields for distinction in battle.

*Greaves*, *ocrea*, the *κνημιδες* of Homer, Pliny makes a Carian invention†: Goliath wore them. Philopœmen, according to Pausanias, introduced them and thoraces into the Greek infantry, that he might substitute the Argolic spear and long shield for the small spear and oblong shield. These greaves were either of metal, or bull's hide (see before from Strutt, vol. i., pl. 5. f. 5.); rose before, to the top of the knees, nearly met behind at the calves, and terminated just above the ankle; but some are demicylindrical plates, and only protect the shank.‡ They were fastened behind, Dr. Meyrick says, with pieces of metal, even of tin, ending in buttons; others, with thongs or buckles. Mr. Hope observes, that greaves are frequently omitted in Greek figures, particularly those of later dates. Sometimes, on fictile vases, a kind of apron or curtain is suspended from the shield, by way of a screen or protection to the legs.§

*Gauntlets*.—Dr. Meyrick says, that he never saw any representation of the *χειρεις*, or hand-guards. A stiff leather cuff, with a slit on one side, appears to cover the sword-hand of an ancient Greek figure, given above, from Strutt, i. pl. 5.

Among the Spartans, says Müller, whose attention was almost exclusively directed to heavy infantry, the arms consisted of a long spear, a short sword, only used in the closest single combat, a brazen shield (the round Argolic), which covered the body from the shoulders to

\* Doriae, ii. 261.

† Winckelm. Monum. Antich. No. 132. and 22.

‡ Meyrick.

† vii. 5. 6.

the knees, and was in other respects also more similar to the shield of the heroic age than that of the other Greeks. For, while the Greeks in general had adopted the Carian handle (οχαρη), in order to direct the motion of the shield, of which the size had been considerably reduced, the Spartan buckler was probably suspended upon a thong (τελαμων) laid round the neck, and was only managed by a ring (πορπαξ), fastened in the concave side, which in time of peace could be taken out. Cleomenes the Third first introduced the handles of shields in Lacedæmon, and in general a less heavy armour.\*

*Offensive arms.*—The earliest, though the spear has been mentioned as such, was the *club* (φαλαγγξ, in Homer, II. iv.), which, upon ancient monuments, designates persons who lived in the heroic ages: where they appear as weapons of war upon Roman monuments, they denote barbarians. From the club proceeded the mace, battle-axe, and similar arms of percussion; but in all ages the great use of clubs and maces seems to have been destruction of the armour of the enemy.†

The club soon gave way to the *mace*, which had its name (κορυνη) from the little horns or spikes by which it was surrounded. It occurs in Homer, and on an old coin.‡ Several brazen mace-heads, which prove that the handle was originally of wood, may be seen in the British Museum. Under the battle-axe class was the πελεκυς, a short handle; at the top an axe blade; a pike opposite. The Amazons are armed with it. Homer § distinguishes it from the αξινη, which had a long handle, on the end of it a spike. At the head was on one side an axe blade, on the other a spike. With this weapon Agamemnon is said to have encountered Pisander.|| The *bipennis* or double-bladed axe is commonly seen in the hands of Amazons. We meet with blades crescent-formed, and *long handles* (see *figs.* 1, 2.),

\* Dorians, ii. 260.

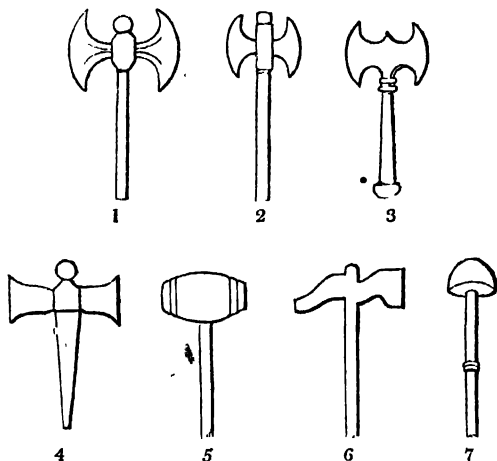
‡ Engr. Stuart's Athens, iii. 53.

|| Meyrick.

† Enc. Méthod.

§ Il. xv. v. 711.

with a short handle (*figs. 3, 4.*), as a double hammer or mallet (*figs. 5, 6.*), but sometimes the Amazons bore a



mushroom-headed club (*fig. 7.*). Our bills, or allebardes, or cleave-alls, were derived from the bipennis. We meet with a Greco-Egyptian battle-axe, with a weight on the back of the blade.\*

*Spears and Javelins.*—The latter are considered missile, the former not. They were kept at home in cases, and, it being customary to put them against a column, Dr. Meyrick thinks that in this intention originated fluted columns. They were adorned with banderolls, and carried at funerals inverted. Homer says \* that to present a spear by the middle was to request a suspension of the battle.

The spear (*ορχος*) was generally made of ash, with a leaf-shaped head of metal, and bottomed with a pointed ferule, called *σάκεα*, by which it was stuck in the

\* Meyrick.

† Il. ili. v. 77.

ground ; a method used, according to Homer, when the troops rested upon their arms, or slept upon their shields.

The *αγκυλα*, *ακλιδες*, *amentum*, *cestrosphendonus*. The *αγκυλα* and *amentum* were thongs in the middle, for further impelling them. The *cestrosphendonus*, a Macedonian instrument, much shorter, was darted by two thongs of unequal length. The *ακλιδες*, short and thick, and stuck with points, were pulled back after attack.

*Διγανη*, *γασφρος*, and *εψος*, were javelins, of which the form of the heads may be seen in Stuart.\* Several of these, says Dr. Meyrick, were loose upon their shafts, in all probability having attached to them a cord, which was held by the side of the wood, so that, when the weapon once entered the body, the head could not be extracted without the greatest difficulty.

*Double-pointed lance*.—This is mentioned by Homer.† See *fig. 1*.

*Δρεν*. This lance, says Dr. Meyrick ‡, was probably that used by the cavalry, and furnished with a loop of leather, which served the warrior for a support, when he chose to let it hang from his arm, and to twist round the latter, for the firmer grasp, when charging. This strap was called *μεσαγκυλη*, being put on about the middle. Other accounts make the intention of the thongs to be that of balancing it like a sling, for the purpose of sending it farther. The Romans distinguished the *amentum* by these thongs. See *fig. 2*.

*Hunting-spear* had salient parts to prevent the advance of the wounded animal. It appears on the coins of Ætolia. See *fig. 3*.

*Κορτος*, a long lance used in the defence of ships. The cataphracts, or heavy-armed cavalry, had other similar. There were, both in the Greek and Roman armies, horsemen called *contarii*, who used this spear as a missile. The *contus nautarum*, when furnished with a crook, was the boatman's hook.

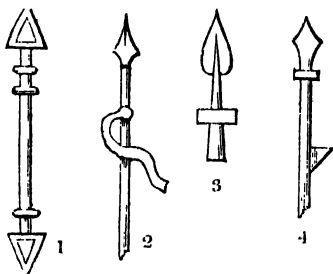
\* Athens, iii. 27. vignette.

† Winckelm. Monum. Antich. .

‡ xxxv Engrav. Stuart's Athens, iii. 47.

*Surissa*, a long Macedonian spear, originally sixteen cubits long, but in Ælian's time only fourteen.\*

The *mounting spear* had a step annexed to the staff, by which the horseman, having leaned the spear against the horse, ascended. See *fig. 4*. Figures often appear,



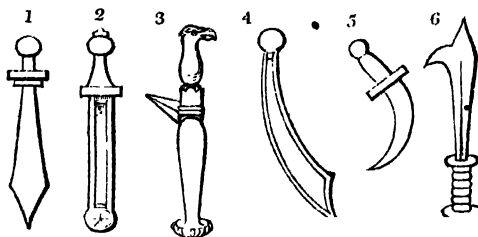
carrying two spears ; one for missile purposes, the other for retention.

*Swords*.—It may be generally noted, that the swords of civilised nations were straight, of barbarians crooked, the Lacedæmonians excepted, which were very short, and curved. The modern thin-bladed narrow sword was unknown, though those of the cavalry were proportionably long. A further distinction between ancient and more recent swords is a guard for the fingers ; for though one of a single bar occurs among the Etruscans, yet no other instance is mentioned by Dr. Meyrick.

The Greeks of the heroic ages wore the sword under the left armpit, so that the pommel touched the nipple of the breast. Generally, the sword was almost horizontal. It hung by a belt. The length was nearly that of the arm. The scabbard was terminated in a knob, shaped like a mushroom. Dr. Meyrick thus describes the Greek swords. (1.) The ξίφος, worn at the left hip, suspended from a leathern strap, which passed over the right shoulder. It was straight, intended for cutting

\* Meyrick.

and thrusting, with a leaf-shaped blade, and not above twenty inches long. It therefore reached only to the thigh. It had no guard but a cross-bar, which, with the *κολεος*, or scabbard, was beautifully ornamented. The hilts of Greek swords were sometimes of ivory and gold. Inlaying sword blades and hilts with gold is mentioned by Herodotus; and Cæsar encouraged the adornment of arms, that the soldiers might be more desirous of preserving them. (2.) The Argive *κοπις*, from the name, seemingly intended for cutting, had its edge in the inner curve of the blade, as had also the *acinaces*, or scimitars, borrowed from the Persians at a later period of Greek history. (3.) The *ξυνσι*, or *ξυσλας*, Lacedæmonian swords, were all of the short cutting kind, and crooked like a sabre. (4.) The *machaira*, or dagger, was more frequently used for a knife, but worn, says Homer \*, in the scabbard of the sword.



*Sword-belt.*—This was the *τελαμων*, confounded in later times with the girdle. The Greek heroic figures carry their swords suspended by a belt similar to the modern, only shorter. Homer † mentions a sword, fixed near the shoulders to a thong, ornamented with silver studs; and it is noticeable that Virgil, who was a copyist of Homer, and studious of depicting the manners of the heroic times, has mentioned both these characteristics in the *Æneid*.‡ In the Greek figures, to judge from a

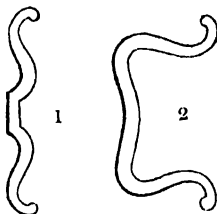
\* Il. i. v. 272.

† Il. ii. v. 135.

‡ *Æn.* viii. 439. "Tum lateri," &c; and xii. 941. "Humero cum," &c.

statue at the Villa Albani, the belt was a simple thong, tied to the scabbard towards its aperture, whence it passed over the breast and right shoulder, and, falling across the loins, was fastened to the point of the scabbard. The custom of attaching the belt by many turns upon the scabbard is the most remote, the annexation of rings for that purpose, as in the base of the Trajan column, being posterior to the Trojan war. The barbarous nations were noted for splendid baldricks.

*Bows and arrows.*—The Greeks and Romans, it is said, employed archers to draw the enemy into action. Two particular bows are noted; the bow of Hercules, or Scythian bow, of the form of the Greek sigma,  $\Sigma$  (see *fig. 2.*), and the bow of Apollo (see *fig. 1.*).



Dr. Meyrick says of the Greek bows, that the short bow was made of two long goat's horns, fastened into a handle. The knocks were termed *κορώνη*, and were generally of gold; which metal, and silver also, ornamented the bows on other parts. As the Greek bows were small, they were drawn not to the ear, but to the right breast. The arrows are said to have been made of reeds (meaning, I presume, cane, as were the Persian), or light wood, feathered at the butt, and headed with barbed points of bronze or iron; but these were sometimes pyramidal, whence the epithet *τετραγώνια*. They were carried in a quiver, which, with the bow, was slung behind the shoulders. Some of these were square; others round: many had a cover to protect the arrows from dust and rain; and several appear on fictile

vases to have been lined with skins. The original bowstrings were thongs of leather, but afterwards horse-hair was substituted, whence they were called *ἵππια*, and, from being formed of three plaits, *τρικωσις*.\*

*Slings.* — Slingers were very rare in the Greek armies, and consisted then of inferior soldiers, who were fit for nothing better.† Pliny ascribes the invention to the Phœnicians‡; and this is probable; for the Jewish slingers are said to have been so expert, that some hundreds of them, in one army, could sling stones to a hair's breadth, and not miss§: and it is remarkable that the Scripture calls them all “left-handed men.” Hence the adroitness of David, who was possibly also left-handed. The Greeks had *ακροβόλισται*, or mounted slingers. The *σφειδονη*, or sling, says Dr. Meyrick, was especially the weapon of the Acarnanians, the Ætolians, and the Achæans, who inhabited Ægium, Dyma, and Patræ; but the last of these so far excelled, that, when any thing was directly levelled at a mark, or a successful hit, it was usual to call it *Αχαϊκον βελος*. Some of the Achaian slings were made of a triple cord; others of wood, and sometimes of leather; and are described by Dionysius as having the cup not exactly hemispherical, but hemi-spheroidal, decreasing to two thongs at the ends. The Roman sling upon the Trajan column is simply a short thong, and is there used for driving the besieged from the battlements. But, as Florus and Strabo say, there were no doubt three kinds, long or short, according to the proximity or distance from the enemy. Out of them were cast stones, or bullets of lead, called *μολυβδίδες*, or *μολυβδα ισφαιραι*. Some of these, engraved by Stuart ||, are spheroidal, having an ornament on one side, and the word *Δεξας* on the other. Those in Count Caylus ¶ are of the form of olives, and inscribed with Greek or Latin characters. Aldrovandi, &c. have published others, with *FUGITIVI PERITIS*, *ITAL. GAL.* and *FERI*. Some of

\* Meyrick, &c. † Enc. Méthod.  
|| Athens, iii. p. 27. Meyrick.

‡ vii. 56.

§ Judges, xx. 16.

¶ Rec. ii. pl. 93. n. 3.

them weighed no less than an Attic pound, *i. e.* a hundred drachms. Small ones may be seen in the British Museum; and, according to the size of them, the slings were managed by one, two, or three cords. Stones were also used, as by David; but as these could not always be got of a proper form, these leaden bullets were cast. At a later period, the Greeks had a method of casting from their slings *πυροβολοι λιθοι*, or fire-balls, and from their machines, *σκυταλις*, made of combustibles, fitted to an iron head, which, being armed with a pike, stuck fast into its object, that it might be more surely inflamed. Both the Greeks and Romans called a mounted ring a sling, from the resemblance of the ring to the leather enclosing the stone. Montfaucon says, that, to judge from the slingers on the Antonine column, the sling was a long narrow piece of leather, or other stuff, the two ends of which were held in the hand, and the stone put in the folding at the bottom; one of the ends having a loop for the fingers, that when the stone was thrown the sling might not slip out of the hand. David carried his stones in a bag or scrip; but upon the Trajan and Antonine columns the slingers carry the balls, or stones, in a corner of the cloak, held up by the left hand, like a woman with an apron.\* The sling principle was applied to machines, of which hereafter.

*Knapsack.* — The soldier, to carry his provision, had a *basket*, (*γυλιον*, or *οψοθηκη στρατιωτικη*, made of oziers, *πλεγμα*, with a long narrow neck.† But Mr. Valpy translates *γυλιον*, from the same authority, Aristophanes, by *knapsack*‡; and the Greeks used *σκευαζειν* to signify things collected into a bundle for convenient carriage on the shoulders§: and it is certain, that on the Trajan column the soldiers carry their provisions in a sort of wallet, at the end of their spears. The etymon will not determine the question, for the root is *γυαλος*,

\* Montfaucon, Meyrick, &c.

† Rous, &c.

‡ Fundamental Words of the Greek Language, p. 63.

§ Hygen. de Castr. Rom. 272.

hollow ; but the poet uses, in the same comedy, γυλιαν-  
 χεναι, to signify *men that had a neck as long as that*  
*thing*, and this is the best support of the basket inter-  
 pretation. The provision carried consisted chiefly of  
 salt meat, cheese, olives, and onions, sufficient for three  
 days.\*

*Standards.*—Diodorus Siculus says, that the Egyp-  
 tians began this practice by affixing the effigies of an  
 animal to the end of a spear, to make every man know  
 his company, and prevent disorder ; and, conceiving that  
 they gained victories by this means, were hence led to  
 worship the originals. Among the Græco-Egyptians the  
 standards resemble, at top, either a round-headed table-  
 knife or an expanded semicircular fan ; but there were  
 various patterns, possibly of higher antiquity.† Homer  
 does not mention standards ; and Agamemnon, through  
 inability to make himself heard, having elevated a pur-  
 ple cloak upon a spear, to rally the flying Greeks (a  
 practice (σημειον) subsequently mentioned by Polybius,  
 Polyænus, and Plutarch), it has been supposed that  
 other ensigns were then unknown. But it is nevertheless  
 believed that, in the heroic ages, a shield, helmet, or  
 cuirass, fixed at the top of a spear, served for the same  
 purpose. In later periods, the Greeks used ensigns  
 marked with the national symbols ; as the oil and olive  
 for Athens, Pegasus for Corinth, Sphinx for Thebes,  
 the letter M for the Messenians, Δ for the Lacedæmo-  
 nians, &c. It appears from Thucydides, &c. that the  
 elevation of the standard was the signal to join battle ;  
 depression of it to desist. The ancient Græk signal  
 for the former purpose was ejection of a lighted torch  
 by πυροφοροι (priests of Mars) in both armies, for which  
 were afterwards substituted the shell, mentioned by  
 Athenæus, as the shell used by κερυκες (heralds, or  
 criers), and, according to Casaubon, of the fish  
 murex ‡, or trumpet ; and, among the Lacedæmonians  
 and Cretans, flutes.

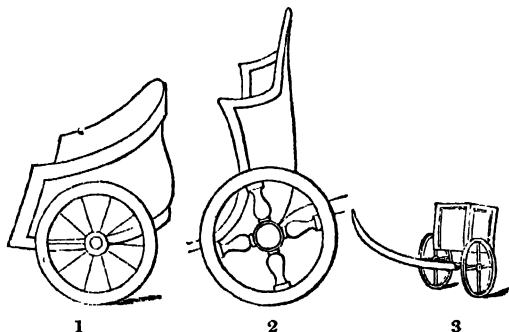
\* Rous, &c.

† Burney's Mus. i. 522.

‡ See Denon, pl. 73. ed. Lond.

*Warlike engines.* — These will be mentioned in the next volume, in connection with the Roman æra.

*Cars of war.* — Though cavalry was in use before the Trojan war, none are mentioned in Homer. The heroes used instead shell-formed cars, guided by a charioteer with reins, which might be fastened to a handle in front. When they appear with three horses, one was often only a spare one, lest the others should knock up. But one car is an upright square box, with a pole turned up (see *fig. 3.*), a fashion of the Egyptian



car of war.\* Scythed cars are nowhere represented, but Diodorus† mentions them as having been used by Ninus. Shafts and poles were both used, but were altered into one, i. e. the latter, by Clisthenes.‡ Iron linchpins are the παραζονια, εμβολοι, and ιηλατα. The plate put at the end of the axle, to keep it from dust, was known in the days of Homer, and called σπερτεριον. The horses were annexed by yokes (traces being unknown to the ancients), resembling ours for oxen. These were called ζευγλαι, and also ακροχηνισκοι, from the curves, like a goose's neck. Homer calls the bowl, or round ornament, at the end of the pole, ομφαλος; and a gem

\* Denon, pl. 73.

† ii. 5.

‡ Kirke's Hamilt. Vases, pref. xiv.

of Storch shows that the hook, upon which Homer\* says that the reins were fastened, was of the form of a crescent.

The car in the heroic ages seems to have been almost solely used for conveyance of the warriors speedily, or as desired, into action, that they might be fresh, unwearied, and attack where they chose. Achilles dragged the body of Hector after it, because it was a custom of the Thessalians, where he was born. Wheels made entirely of bronze are still preserved at Berlin†, the Vatican, &c. ; and Pausanias says, that the public places and temples of Greece were decorated with no less than twenty-four cars of bronze, *bigæ* and *quadrigæ*, of the natural size, filled with one or more figures, and accompanied with couriers and other men on foot.

*Cavalry of the Greeks.*—Pausanias‡ says, concerning a battle, that the cavalry forces were few, and did nothing ; for the Peloponnesians had not then learned the art of riding, and that they only attended, *more majorum* (κατὰ τρόπον τῶν ἀρχαίων), to aid the infantry. The Greeks, indeed, considered cavalry rather as auxiliaries than principals in action, though they had numerous light-armed soldiers, even of slaves, to assist in pursuit and useful purposes.§ This indifference accounts for the non-employment of cavalry in the Trojan war. Plutarch states another reason :—Agcsilaus, being obliged to retreat to Ephesus through inferiority in cavalry, ordered all the rich to provide each a man and horse, which substitution should excuse them from personal service. By this means, in the room of rich cowards, he was soon furnished with stout men and able horses ; and this, he said, he did *in imitation of Agamemnon, who agreed for a serviceable mare to discharge a wealthy coward.*|| Xenophon, too, adds, that horsemen should be able in body as well as purse.¶ In Attica, because a hilly country, there were very few horse, until they had expelled the Medes and Persians

\* Il. E. 728.

† P. 119. l. 21—24. ed. Frankf. 1583.

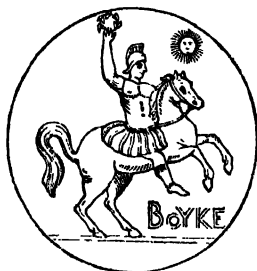
|| Lacon. Apophth.

‡ Winckelm.

§ Müller's Dorians, ii. 259

¶ Rous, 317.

out of Greece, when they increased them to only 300, and afterwards to 1200; and also armed an equal number of archers. Nor did the Spartans have teachers of horsemanship, whom they called ἡνιοχαραται, until they had subdued the Messenians.\* The first cavalry, after the heroic times, were the ἀμφίπποι of Homer, troopers who had two horses upon which they mounted alternately, or rather leaped, like equestrian performers, from one to the other when on full speed.† Pollux‡ attributes the establishment of δῖμαχαι, who fought both on horse and foot, and had servants, under the latter circumstance, to attend their horses, to Alexander the Great. Of cuirassiers (*cataphracti*), and light-armed cavalry (*psiloi*), in the next volume; for Montfaucon says that the Greek and Roman cavalry were similar, in the manner of riding, accoutrements, and other matters. The following curious representation of Alexander, upon his famous horse Bucephalus, shows the χαλκοχιτων of Homer, a very curious ξωμα, *kilt*, or *cambogs*, like that of our Henry VII.§; and the inscription Βουκε, for Bucephalus, because horses were sometimes marked with the head of an ox instead of letters.|| The star signifies the east; and he waves a laurel crown, to denote his conquests in that country.



\* Robinson.

† Il. O' v. 679. 684.

‡ i. 10. 6.

§ See Meyrick's Armour, ii. pl. liv. || Scholiast. in Aristoph. Nub. i.

## SECTION II.

## ARTS OF ANCIENT ITALY.

## CHAP. I.

## ARCHITECTURE, ETC.

CONTEMPORARY ideas can alone illustrate contemporary conduct: and this illustration, in every relation to our subject, is fortunately supplied by Thucydides.\* No great cities, he says, or other tokens of power, existed, because the people were perpetually subject to invasions: every distinct tribe easily resigned its territory to a larger supervening number; and the richest tracts of country were ever most subject to these aggressions. A starving population and a barren soil, as well as the desire of plunder, prompted the study of navigation, as auxiliary to piracy; and it was deemed an honourable profession, if these marauders, like our Robin Hood, spared the labouring cattle, and did not attack by night, or commit murder. The original pirates were Carians and Phœnicians, who inhabited the isles of the Grecian Archipelago, and were expelled by Minos, who substituted colonies of his own. After this colonisation, the maritime people became, as they acquired wealth, which generates a love of ease, more fond of settled habitations. They who were more opulent, strengthened their houses by walls, and also their cities. These, for the sake of traffic with foreigners, and greater security from inland irruptions, they placed (as Cæsar describes the sites of maritime towns among the Celts of Gaul) upon *lingulæ*, or tongues of land, projecting into the sea, and often insulated at high water. The town of Corfu is, according to Le Roy†, a surviving exemplar, as are the corsairs

\* Bell. Pelop. Introd.

† Ruines de la Grèce, p. 3.

of Algiers of the pirates. The inland people seated themselves at a great distance from the sea, to avoid the inhabitants of the coast, who used to make incursions up the country for the sake of booty. The distinct continental tribes also robbed one another; and hence came the custom of wearing weapons,—a custom so noticeable upon the figures in vases. These were also worn, because all over Greece the houses had no kind of defence; travelling was full of danger; and their lives were, like those of barbarians, passed in armour. Thus Thucydides; and his account further illustrates much of the ancient history of our own island, in reference to the internal quarrels of the Britons and Scots, and the Anglo-Saxon and Danish invasions. In the heroic ages, it was the rule to reduce the conquered to a state of drudgery for the victors, as Joshua\* made of the Gibeonites, bondmen, hewers of wood, and drawers of water. Like the feudal nobility of our castles, the military and great men occupied the cities and fortresses. The Greek word for city (πολις) signified, according to Müller†, the ruling aristocratical power; and he says, from Homer, with the city, every thing that concerned the government of a state was connected; and those exempt from all personal share in the labours of the field, viz. the military families and the nobles, dwelt in it; hence it is viewed in Homer‡ as a disgrace or a misfortune for a noble to live among the bondmen in the country. Nearly all the towns of Arcadia possessed citadels of extreme antiquity, like the “royal cities” of the Bible, in and near which, many principal, sacerdotal, and military families dwelt from an early period. The huts or houses of the agriculturists and people were scattered about the fields, or formed into Δημοί, or hamlets.

These premises may well illustrate the primary state of Italy, so far as it is known to us. The aborigines,

\* C. ix. v. 21—25.

‡ Od. xi. 187. xxiv. 414.

† Dorians, ii. 71. Eng. transl.

called Umbri, whose particular territory lay chiefly among the Apennines, were, according to Strabo, with the Boii, Senones, and Ligures, immigrants from Gaul, *i. e. Celts*; and Dionysius of Halicarnassus accounts, from this circumstance, for the intermixture of Celtic words with Latin.\* Celtic antiquities, however, precede the date of history; and the manners and customs of Italy are, in the main, of Grecian affinity. The Umbri were, according to Pliny, expelled from Etruria by the Pelasgi; and, notwithstanding discrepancies in ancient history, they and the Etruscans are presumed to have been one and the same people.†

The finest specimens of architecture in Italy are those which appertained to Magna Græcia; a term loosely applied to the present kingdom of Naples, but more precisely to Apulia, Calabria, Leucania, and the country of the Bruttii. The Doric, of which the origin is most successfully traced above to the Egyptian archetypes, is of course the order in use, unless it be admitted that the Tuscan was not a corruption of the Doric, but a distinct genus. The latter notion seems to have been taken up by those who have made the Pelasgi and Etruscans colonists of different nations, and the order an appropriate peculiarity. It rather appears, that it was only a degraded and impoverished imitation of the Doric. Alberti says, that he found the Doric in use among the most ancient Etruscans‡; and the Doric temples at Pæstum have been ascribed to them. Le Roy§, who compared the only remaining memorials of the Tuscan order at Rome, viz. the Trajan and Antonine columns, with the Doric of Greece, finds few or no distinctions; and the prostyle temples are so similar, that the Tuscan only differed from the Greek in the proportion of their length to their breadth (the Roman temples being shorter), and in the disposition of the interior. But the conformity between the two orders must be limited to

\* A list of Celtic Latinisms is given in Mabé's *Antiq. du Morbihan*, p. 67.

† *Archæolog.* xxiii. 265.

‡ *Ruines de la Grèce*, p. ii. p. 2.

§ *De Re ædificat.* l. cii. 2.

the most ancient Grecian Doric.\* The colonial works, which often exceed those of the mother country, differ from the style of Grecia Proper in the following general characteristics:—a shorter and more tapering column; a more spreading echinus†; a smaller intercolumniation; a greater entasis (swelling of the column); and a higher entablature.‡ The less refined taste of the Romans could not, however, appreciate the simple grandeur and dignified beauty of the Grecian Doric. The order was corrupted even in the time of the republic. The sarcophagus of L. Scipio Barbatus, great-grandfather of Scipio Africanus, consul U. C. 456, is carved in the Doric style, with roses between the triglyphs; and the Doric frieze is surmounted by Ionic dentils.§ M. Bury, a French antiquary, says that the little Doric temple of Hercules at Dori forms the transition from the Greek to the Roman Doric: and, according to Le Roy||, the Tuscan did not participate in this change. The Romans preferred the latter for simple memorial columns, as, besides those of Trajan and Antoninus, Evelyn¶ mentions others, of Theodosius at Constantinople, and of Valerius Maximus.

The Roman Doric of the temple of Augustus at Athens, says Le Roy, so differs from that of the Parthenon or Theseum, that we perceive, on the part of the Romans, considerable and disadvantageous alterations. Vitruvius committed great errors, because he knew nothing of Greek buildings except through authors. He says, that the Doric ought to have seven diameters; and, contrary to the intention of the architrave,—which, from its having to support all the other members of the entablement, required strength,—he makes the frieze too high, and the cornice too full of mouldings,

\* Ruines de la Grèce, p. ii. p. 2.

† The echinus is the second member of the capital: thus, *a* is the *abacus*; *b*, the *echinus*.

‡ The entablature is the ornamental top finish, like a mantelpiece, and consists of an *architrave*, the lower moulding, the frieze or middle, and the *cornice* or upper compartment.

§ Burton's Rome, i. 279.

¶ Miscell. 405.

|| Pref. ix. x.

thus destroying all grand effect in the execution. At the theatre of Marcellus, they even elongated the Doric column to nearly eight diameters, and put more mouldings in the capitals and entablaments; by which they destroyed the original character of the order.\* The cause is thus assigned by Palladio:—If an intercolumniation was only three diameters, the Romans thought that elongation of the column was necessary to take off the heaviness; while wider spaces admitted of less height.† They did not know, that, through too wide intercolumniation, as in the Tuscan order, the effect of the columns was destroyed. So different was the Roman from the Greek intercolumniation, that, where only foundations remain, the orders, among the Romans, might be ascertained by the intercolumniation. The following table will show this:—

Orders.	Intercolumniation.	Length of the Column.
Doric - {	Diastyle, 3 diam.	7½ or 8 diam.
	Eustyle, 2½ diam.	9 diam.
Ionic - {	Eustyle, 2½ diam.	9 diam.
	Systyle, 2 diam.	9½ diam.
Corinthian	Do.	9½ diam.
Composite	Picnostyle, 1½ diam.	10 diam.

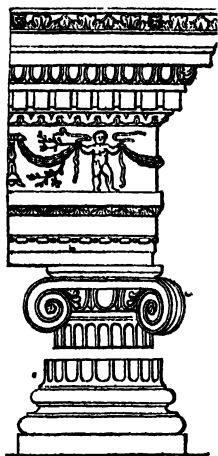
The temple of Augustus at Athens is further remarked by Le Roy to be the source of all the changes which the Romans made in the Doric, as to the proportions which had been in use from the time of Pericles. The difference between this style and the ancient Doric is this:—the shaft of the column diminishes less; the echinus of the capital is more rounded, and has three small annulets between that and the shaft; the entablement is lower, and the cornice more salient and fuller of mouldings. The astragal, an ornament originating with the Ionic, was, apparently, first applied to the Doric by the Romans.

*Ionic.* — Dr. Chandler saw some exquisitely designed and carved capitals of this order at Sardes, now Sart, in

Le Roy.

† Richardson's Palladio, l. i. c. 13. p. 32.

Lydia ; and, therefore, it is likely that the Pelasgi of the Troad and Asia Minor introduced this order into Italy. It is supposed to have taken its rise from some peculiarities in Persian architecture, and to have been known in Greece before the age of Pericles. The ancient capitals are not uniform, but very beautiful.



In the hands of the Romans, they are mean and tasteless deteriorations of the graceful Erechthean exemplar preserved among the Elgin Marbles. There is reason to think that the temple at Eleusis was the Roman model. The ancient bases of this order had, it is said, no square plinths under them ; and Le Roy supposes that the fashion was not older than the time of the emperors ; but it is certain that the bases at Eleusis are formed out of square blocks\*, and that the capitals, rudely imitated in the temple of Fortuna Virilis

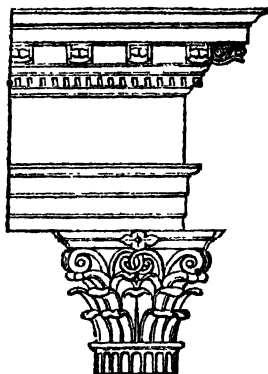
at Rome, are not deep, but very elegant. In the temple of Ilissus at Athens, there is a shorter Ionic, in beautiful proportion, between the Doric and Corinthian. The capitals are larger, to correspond with the entablature ; the bases have no plinths ; and the echinus (or eggs and anchors) is, contrary to the present custom, continued under the volutes, quite round the capitals. These distinctions denote one of the earliest examples of this order.†

*Corinthian order.*—Columns with foliated capitals occur in Egypt and Asia Minor, but are not of very

\* Unedit. Antiq. of Attica, p. 15. c. 3. pl. 3, &c.

† Stuart's Athens, i. 53, n.

early date in Greece. It does not appear that the most ancient capital, seen at Boeotian Thebes, without volutes at the corners, was known ; if so, it was despised for the richer form of that of the Choragic monument of Lysicrates. Le Roy thinks that the Corinthian was not adopted at Rome before the time of Adrian. The



foliated Corinthian became to the Romans, what the Doric had been to the Greeks — their national style. The Greek original was, however, varied to a wonderful extent, without losing its distinctive features. That the Romans, in this favourite style, could improve as much as equal their Greek models, is evident from the temple of Vesta at Tivoli, which seems to have been copied from the Choragic monument on a larger scale. Nor were the architects only Greeks. Many works of sculpture, such as candelabra, vases, and articles of household furniture, are some fashioned in the Greek style, and others as decidedly Roman ; so that there was a distinct national style, and native as well as foreign artisans. At Kiselgick, in Turkey, the capitals of a Roman Corinthian temple are of the highest richness ; in another instance, at Mylasa, the shafts are not cir-

cular, but elliptical. The Roman Corinthian differs from the Greek, however, in having a loftier stylobate, not graduated, except for the purposes of access before a portico; and a steeper pediment, besides various minor differences. The intercolumniation is not the same in any two examples, and the antæ are generally parallel, but pilasters are mostly diminished and fluted, as the columns.\* So fond were the Romans of this order, that at Pompeii, Doric columns of less than six diameters were transformed into Corinthian by means of plaster; the capitals borrowing a part of the shaft, already too short.†

Nero is said to have introduced the custom of overloading architecture with empty ornaments; and the Composite, an order purely Roman, is first seen in the arch of Titus. The ancient examples differ very little from the Corinthian, except in the peculiar conformation of the capital. In the best ages of the Roman architecture, the Composite was only used in triumphal arches; but the Romans afterwards made many other composites. In these variations, animals of different species, the human figure, armour, a variety of foliage, and other peculiarities, are found. Shafts of columns are sometimes corded or cabled, instead of being fluted: those of the ordinance of the Pantheon are cabled one third their height, and the flutes of the antæ of that ordinance are flat, eccentric curves. There are fragments of others, in which the fillets between the flutes are beaded; some, in which they are wider than usual, and grooved; and others again, whose whole surface is wrought with foliage in various ways. The columns of the façade of the temple of Augustus at Malasso (*ol.* Mylasa, in Caria) are of this order. The upper part of the shaft is adorned with festoons, and the lower part is enriched with leaves of acanthus. Palladio‡ says that the most regular and beautiful kind is that which is composed of the Ionic and Corinthian; and Alberti§, that the capitals

\* Mr. Hosking.

† L. i. c. 18.

‡ Pompeiana, 214.

§ F. cv.

were intended to comprise the most beautiful parts of the other orders : but that there were some, in which the parts were either increased or diminished, and therefore disapproved by men of taste.

The change of religion, which took place under Constantine, led to the destruction or destitution of many of the noblest edifices of Rome. The ancient Christian basilicas are for the most part constructed of the ruins of the more ancient Pagan temples, baths, and mausolea ; and in them a much greater degree of simplicity, and consequent beauty, pervades the columnar arrangements, than existed, perhaps, in some of the previous combinations of the same materials. Frequently, however, the collocation of various parts was most unapt ; and gross inconsistencies were resorted to, to get rid of the difficulties of combining discordant fragments.

*Building materials.*—The public works of the Romans were built by slaves, condemned to furnish a certain portion of materials (*e. g.* if of stones, eight cubic feet), every day, under penalty of a severe flogging. Crassus bought five hundred *slave* carpenters and masons. The provinces were obliged to contribute every year a given number of loads of lime. Contractors of marble quarries, and proprietors of mines of all sorts, paid an impost according to the public necessity ; and to these were further added, contributions from the private funds of the emperors, from those of rich citizens, and triumphers, and from spoils of the enemy. In subsequent eras, these benefits were lost. The military employment of the people, as soldiers, during the middle ages, and the feudal government, which isolated every seignory and village, covered the whole surface of Europe with chiefs and vassals, none of whom were in the habit of building even a paltry bridge ; for which humble fabrics, they were indebted to the subscriptions of individuals.\*

In the choice of the materials, the Romans were guided

\* Mémoire sur les Travaux publics des Romains, par Antoine Mongez Mém. Instit. Nation. i. 492—536.

by the productions of the country. If the soil was sandy, they laid the foundation upon piles, the interstices of which were filled with fossil coals\*, because insusceptible of wet; and they also used, where necessary, cinders, and successive layers of broken bricks, stones, and coals, rammed down hard. Cofferdams for space, wherein to work the piles, and a mixture of oil with the cement, to resist moisture, also occur.†

The greater extent of brick to useful purposes, especially to arches, and its greater cheapness, caused the Romans to prefer it to stone. Brick, too, can, in almost every place, be made on the spot in which it is wanted. Accordingly, nearly all Roman works were made of it; and the *opus reticulatum* (the modern *mattoni*), or brick walls, covered with reticulated plaster, is more common than any other. Raw bricks were used long before the foundation of Rome, down to the reign of Titus; but were prohibited (says Vitruvius) within the compass of the city, because, for the support of three or four stories, they required a thickness which would encroach upon the highway; nevertheless, they were allowed in the country.‡ These raw bricks were made of lime, sand, clay, or *creta* (marl), pulverised pumice-stone, and straw, although these substances did not enter into the composition of all raw bricks. They were dried in the sun for two years; and Pliny says, that walls built with them, if they were made perpendicular, would last for ever. It is remarkable, that Vitruvius mentions a sort of these bricks which would float in water; a levity ascribed to the straw and pumice-stone, and one which would be now of enormous utility in the construction of cupolas, vaults, and floors.

Bricks of this kind were made in the month of May; for in summer the outside only would be scorched, and the interior remain damp, the result of which would be

\* Carbonibus sub terra defossis. — Vitruv.

† Mem. ubi sup. 518. seq.

‡ Vitruvius distinguishes these raw bricks from the *testa* and *structura testacea* (burnt bricks), by the term *lateres*, *lateritii parietes*, and *lateritia*.  
At least, so says Mongez, Mém. ubi suprà.

fissures. The earth being cleansed from all asperity, and macerated in mixture with straw for a long time, was pressed into a mould; then being left to dry, it was now and then turned to the sun. These bricks were 2 feet long, 1 broad, and 4 inches high.\*

That bricks could more easily be fashioned to pattern by moulds, than stones be carved, is obvious; and therefore *terra-cottas*, i. e. pottery, cornices, ornaments, as monstrous heads for water spouts, antefixes, instead of parapets, and other contrivances to exclude rain from the walls, repeatedly occur. Bas-reliefs of brick were let into the walls of houses; and lumps of the material, irregularly shaped, were, upon laying foundations, used to consolidate marshy and moveable soils. These lumps were not moulded, but formed by hand or a wooden mallet, and resembled, some, rude cylinders; others, irregular cones, parallelopipeds, &c.; but none were found at Marsal, of more than from four to twelve inches in circumference.† These were columns of brickwork, tribuli for water-pipes; and at Pompeii, at the corners of rooms, for emission of smoke; bricks of various sizes, the larger for public buildings, some shaped for arch-work; others very small, not more than 6 inches long, 3 broad, and 1 thick, used edgewise (*spicatum*), for pavements; and triangular ones, for the corners and other parts of walls.‡ The art of glazing bricks was also understood §; and some by vitrification, through this process, in the form of a leaf, of a silvery aspect, have been found at Pompeii, and, therefore, have not been invented, as assumed by a Florentine sculptor of the fifteenth century. Most ancient bricks have sigles (initials of names, &c.), and some of these are noted by count Caylus || to have been intended for puffs of the manufactory and maker. Pliny divides bricks into the *lidoron*, at 6 inches long and 1 broad; and the *bisseda*, 2 Roman feet long. What we mostly find in ruins resemble oven tiles. It is a curious fact, that to ease

\* De Re rustic. 345. Lugd. 12mo. 1537.

† Mém. ub. supr.

‡ Id.

§ Alberti, f. xxvii.

|| Rec. III. 253.

walls from weight and humidity, the ancients used to work into them water vessels, "*rimosa atque inversa*," says Alberti \*, *cracked, and the mouth downwards*, and pour over them grout-work.

*Stone materials.* — The Romans distinguished the various kinds, as the *Volscinian*, which resisted fire and weather ; the *Gabine* and *Alban* for beams, because unaffected by the former element ; *lapis albus*, white freestone, which could be easily sawn and chiselled, but would not stand frost ; the *Histrián*, most susceptible of damage by flame and vapour ; the *Campanian*, good for all purposes, but too absorptive and siccatory of mortar ; and other kinds.† These had also distinctive characters. Some were called strong, juicy (*succosi*), and *redivivi*, growing, as flints, marbles, and similar kinds ; others, with plane surfaces, right lines, and equal angles, they named *quadratos* ; again, with various lines and angles, *incertos* ; light, the toph and sandy kind ; the very large, *prægrandes*, not moveable by hand ; the *minutos*, the reverse ; the intermediate, *justos* ; but in every kind, it was indispensable that the stone should be sound, and not deliquescent.‡ To marble they objected, because almost every thing stained and disfigured it.§

*Foundations.* — The ancients were guided in their choice of situations, by rocky strata, and places where the vegetation was barren, and the ground not springy. The methods of laying foundations were much the same as the modern, viz. excavation to a solid stratum, piling, substrata of stones, mixed with cement, and even solid pavements of whole square stones. There were, besides, various modes according to the materials and countries, and their own peculiar constructions fitted to maritime sites, and those upon which columns were to rest.||

The *roof* was, according to Vitruvius, among the first people flat ; and so roofs were made among the

\* Alberti, f. xlv. b.

† Id. f. xxxix.

‡ Id. f. xxv. xxvi.

|| Idem.

‡ Id. f. xxxi.

Greeks for walking on ; but, to prevent inconvenience from rain and the lodgement of snow, they were, in certain countries, ridged. Alberti says that the roofs *sub dio* were not used for ambulation, like those *non sub dio*.\* The covering materials consisted of thatch, wooden planks, or shingles, plates of stone or metal, and lead. The Etruscans and Ligurians used sections of crustaceous stone. There were also tiles in the later eras. These were divided into the following kinds : — as the *imbrex*, placed in rows to receive the rain ; and the *tegula*, which covered the joints. These were finished off at the eaves with upright ornaments, called *antefixes*, sometimes a fanciful leaf, sometimes a mask.† Buccides is said to have first invented the latter of red brick, for which marble with whole tiles was afterwards substituted.‡

*Ceilings*.—Some were only of planks (the Greek *πατωματα*) ; but, when they had ornamented panels between beams, they were called *laquearia*. Some places had neither ; only figures, &c. in stucco, inside the roof. The more wealthy Romans were, however, particularly fond of splendid ceilings ; so much so, says Alberti, that they seem to have bestowed upon them their chief attention. They were ornamented with plates of gold, glass, and brass, gilt beams, and sculpture of crowns, flowers, and statues ; and he adds, that the ceilings (generally arched) had ornaments imitative of the figures which silversmiths disposed in *pateræ* ; and in sleeping rooms were copies of the patterns which decorated the bedclothes.§ This fashion of the Romans, who detested naked spaces, is well exemplified in the vaulted ceilings of the *tepidarium* of the baths of Pompeii ; while that of the *caldarium* is entirely carved with transverse flutings, like that of enriched columns. Montfaucon mentions magnificent ceilings,

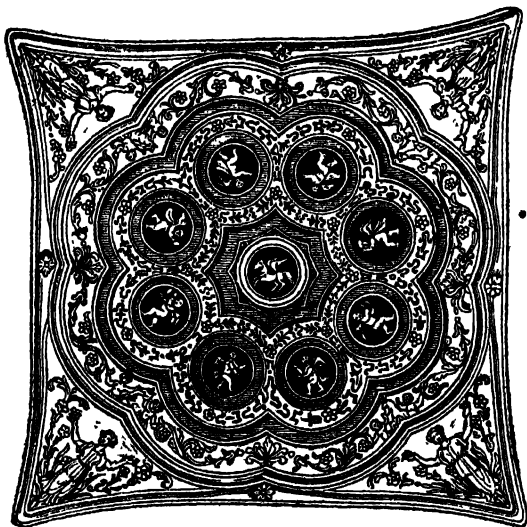
\* Of these more fully, under *atrium*, hereafter.

† Pompeiana, 221. 223.

‡ Alberti, f. cx.

§ "Atqui et habet quidem sua ornamenta testudo. Apud veteres qualia ornamenta in pateris sacrificiorum facerent argentarii ; eadem ad testudines sphericas exornandas architecti transferebant. Qualia vero stratoriis lectorum pannis assuevere, talia fornicibus et camaris imitabantur."—f. cx.

covered with ivory plates, which moved and turned round in such a manner that, at intervals, they could



make the ceilings rain flowers and perfumes. Varro recommends a ceiling made to resemble the sky, with a moveable star and index (radius), which within would show the hour of the day, and, without, the direction of the wind. Chambers, in cottages and humble buildings which had no ceilings (a custom not uncommon formerly in the upper rooms of our colleges at Oxford), were vaulted with reeds bruised and flattened. The magnificent ceiling here given is from Montfaucon.

The *windows* were so disposed as not only to admit light, but ventilate the whole house, that it might not be unwholesome, and not receive more or less light than was necessary. They were placed high, that the person might be sheltered from the wind, and receive the benefit of the latter without injury. They

were to be large or small, according to the exposure to the sun. Those of a southern aspect were to be low and small, because they would receive the light airs, and be impervious to the heat of the solar rays; but in winter dwellings, they were to be open to the sun. All windows, however, which were made for the purpose of receiving light, were to be placed on high.\* It is certain that windows were very rare, and long galleries only lit up with loopholes; and that the few elevated windows to be discovered were closed with curtains and trellis-work of bronze, suspended upon hinges, to open and shut at pleasure. One of these, in a perfect state, was found at Herculaneum. The chambers at Pompeii had no windows, but were lighted by the door, as was, according to Apollonius, the chamber of Medea. Elsewhere there are exceptions. The Pompeian excavations have clearly demonstrated the use of glass in windows. In the apodyterium of the baths, a skylight is placed in the archivolt, two feet eight inches high, and three feet eight inches broad, closed by a single large pane of cast glass, two fifths of an inch thick, fixed into the wall, and ground on one side, to prevent persons on the roof from looking into the bath. The *tepidarium* was also lighted by a window two feet six inches high, and three feet wide; in the bronze frame of which were found four very beautiful frames of glass, fastened by small nuts and screws, very ingeniously contrived, that the glass might be removed at pleasure.† Other instances occur elsewhere, as well as the substitute of alabaster. Vitruvius mentions windows (*valvatae fenestrae*) which reached from the window to the floor. Bow windows have been found both at Pompeii, and in some Roman remains at Ridgewell in Essex.‡ Beckmann will have it that transparent windows were, in the time of Seneca, entirely new.§

*Doors.*—Doors were sometimes of marble or metal;

\* Alberti, f. xv.

† These instances are taken from a very useful little work, entitled "Pompeii," vol. i. pp. 155. 162.

‡ *Archæologia*, xlv. 65.

*Invent.* ii. 98.

but cypress was a wood, from its durability, so valued by the ancients, that doors made of it at the temple of the Ephesian Diana lasted 400 years, and others, at Rome, once covered with silver, 550 years.\* At Pompeii, fir appears to have been much used. The doors revolved upon pivots, which worked in a socket below, and were fastened by bolts which hung from chains.† A false door, with a ring for a knocker, six feet wide, and ten feet and a half high, framed with styles and panels, like those now in use, occurs at the Chalcidicum. By the side of the outer door was either a real dog chained, or one painted, a custom still retained in France; and on the door-post was inscribed the name of the proprietor.

*Floors and Pavements.*—The Romans were very particular about their floors; for they not only laid wood-work, distinct from the walls, lest contraction should induce clefts, but a strong coat of plaster upon it, and, over all, a pavement, which would not feel cold to the bare-footed servants, even in winter: in summer habitations, a similar bed received either a brick, or marble, or tessellated pavement, or lozenge-shaped scutulæ, which were made regular at the angles by borders of brick.‡ The brick floors were of two kinds: those large, laid flat; and smaller, laid edgewise. Out of bricks, horn, marble, sawn pebbles, and artificial pieces of glass, they formed floors; and even some carved with many figures occur: each sort had its respective denomination. In parts open to the air and rain, a very solid stone pavement was requisite; but there were details and particulars too numerous for mention in a work like this: all, however, depended upon a bed of rubbish and plaster§, well beat into a cake. At Pompeii, pounded tile forms the surface in the more ordinary rooms; in those of the next rank, small pieces of marble or coloured stones were embedded in patterns, at intervals, in the cement, while undried.|| In

\* Alberti, f. xxiv.  
 † Alberti, t. xlvii.

† Pompeiana, 163.  
 || Pompeiana, 160.

‡ Re Rust. 231.

the bed-rooms, the famous mosaic, or, as we call it, tessellated floor (the Latins, *lithostroton*) occurs. The Orientals were most remarkable for gorgeousness in apparel and furniture; and they invented this fashion of small pieces of stone coloured, not cubes of glass, in imitation of painting. A pavement of red, and blue, and white, and black marble, mentioned in the book of Esther\*, is among the first known specimens: the Greeks adopted it in substitution for painted floors; the Romans copied them, and the fashion became in vogue about the time of Sylla. In the age of Augustus, glass was commonly used; and Laborde† acquaints us that pavements became so complicated, as to take different denominations:—viz. 1. *Sectilia*; made of pieces of marble cut into large compartments. At Pompeii, the mosaic pavements in the principal houses are generally of white and black marble, or all of one or the other colour; and one house was partly paved with milkwhite slabs of marble, about a foot square.‡ 2. *Secta*; like the French parquets of marble. 3. *Tessellata*, or *quadratoria*; our well-known specimens. And, 4. *Vermiculata*; the same tesserae, but named from the design. In the later ages, the new and old religions were mixed together in the designs: in some, David and Goliath appear; and in another, the Christian monogram accompanies a figure of Neptune. Towards the end of the thirteenth century, when the art was almost forgotten, Andrew Taffi learned it from a Greek named Apollonius, who became the founder of the modern mosaic. This differs from the ancient by being shaded.§

*Staircases.*—The Romans made very little use of carpentry; but Alberti|| mentions ash and maple as good wood for stairs. The Romans thought them injurious to the good look of the house; and held that the fewer they were the better, because more room was

\* Ch. i. ver. 6.

† "Recherches sur la Peinture en Mosaïque," annexed to his "Italia," Paris, 1802, folio.

‡ Short's Tour, p. 53.

§ For. Topogr. xxxiv.

|| F. xvi.

saved in the area. He says that, in the staircases of temples, there were landing-places at every seventh or ninth step; and Palladio\* adds, that in the Portico of Pompey, at Rome, were winding stairs of admirable construction. Being placed in the middle, so that they could receive light only from on high, they were set upon columns, for the purpose of distributing the light to all parts alike. Bramante imitated one without steps at the Belvidere. Staircases outside the house, and some within, arched and narrow, occur at Pompeii and Herculaneum.

*Chimneys*.—None have been found at Pompeii; but Palladio, to use the words of Richardson's translation, speaks thus concerning them:—"The ancients, to heat their chambers, did serve themselves in this manner: they made their *chimneys* in the middle with columns or *corbeaux* (brackets), which bore up the *architrave*, upon which were the *funnels* of the *chimneys*, which conveyed away the smoke; of which kind one may be seen at Bay, near the *Piscine* of Nero; and one which is not far from Cività Vecchia; and, when they would not have *chimneys*, they made in the thickness of the wall pipes or funnels, through which ascended the heat of the fire, which was under the chamber, and was conveyed forth through certain vents and conducts which was on the top of the funnels."† There were, however, says Alberti‡, no chimneys, because the Romans were afraid of fire; and none have been found at Pompeii; for it was usual to burn firewood which did not smoke.

Although the ancients adopted stone for their public edifices, yet, as Greece was a country subject to earthquakes, light framework was preferred for private dwellings.§ Of Etrurian history, we have only the few glimpses exhibited by remains and Roman authors; and they all agree that caves formed the first habitations in the pastoral stages of society.|| The vale of Ispica, in

\* Lib. i. c. xlv.  
 § Leake, B. 143.

† P. 193.

‡ F. lxxvii.

|| Inven. l. ii. s. G. l. 1—10.

Sicily, presents for eight miles long a series of these caverns, justly ascribed to the Phœnicians or Cyclopean occupiers. They are excavations in stories, mounted by temporary ladders, and are divided into apartments, each having as many distinct doors (a subsequent Roman fashion), there being among them no direct communication from room to room. The cattle were under the same roof. Some of the caverns are still inhabited, and every thing still put to the same use. It excited the surprise of Le Roy to see, in the Greek cottages, the oxen, goats, and sheep, pass before him peaceably to their respective compartments. There can be little doubt but that the cottages were adapted to similar plans, like those of the Greeks in modern times, and that of Baucis and Philemon, described by Ovid. The precursor of the Roman style seems, however, from the term *Tuscan Atrium*, particularly described hereafter, to have been derived from that nation. The succeeding houses were, generally speaking, open to a hall or court, called *atrium*, which was not wholly covered in, but unroofed in the centre (like a modern yard with sheds all round); and this was the only *atrium* used in the first times. In the dwellings of the poor, it is said that there were at no period *atria*; and that such was the distinction between *their* dwellings and those of the rich. Nevertheless, these houses were full of rooms, and had a court or peristyle.

The next sort of a house in rank is that of a tradesman at Pompeii, very like a modern house. It is fixed upon a basement story; the entry up steps is faced by two pilasters; the lower floor is dead wall, the first floor has three oblong square windows; the roof is flat, and in front is an escalloped parapet. Some of these more humble houses were very irregular; "an indication," says Mazois, "of the dwellings of obscure persons."

The superior Roman houses have been assimilated to those of the Greeks; but, assuredly, there were strong points of difference in the arrangement and character of the rooms. There does not, however, exist any remains

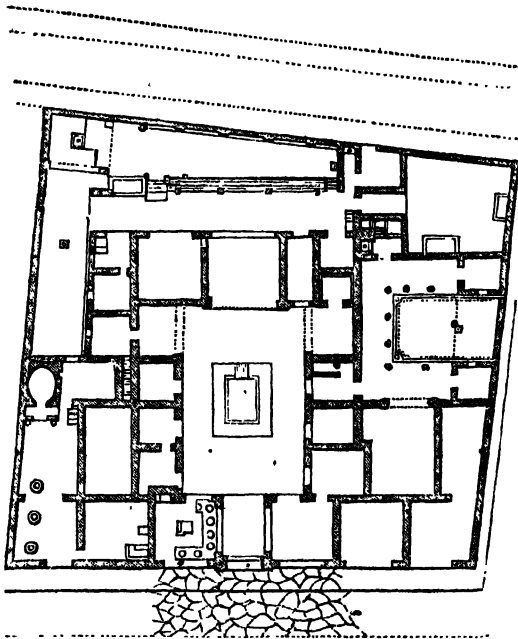
of a Greek house; and any plan made out of the description of Vitruvius must be controvertible. Mr. Wilkins\* and sir William Gell† have both given such hypothetical plans of Greek houses; and, however inaccurate all such plans may be, there seems to be one uniform principle in all, viz., that all were adapted to large households, and that there were, as to the women and visitors, distinct sets of lodgings, besides necessary offices for domestic purposes. Alberti‡ has given a plan, which, however it may differ in particulars, leads us to the intention, in disposing the interior, from which evidently resulted such an enormous number of closets. A man and his wife were to have rooms, but accessible to each other, that both might uninterruptedly enjoy their *siestas*, or noonday naps, and desire of occasional separation: each room had its distinct door, and one common to both, by which they could privately communicate with each other. Under the wife's room was the wardrobe, under the husband's, the library. An aged mother had a quiet place apart from the family, with especial provision for a fire. Beneath this was a plate-room (*argentaria cella*); and here were lodged the male youths; the virgin girls in the wardrobe; in a room adjoining, the nurses. The visitors' place was near the vestibule, that the proprietor might receive friends, and not disturb the family. The master of the house had his rooms not far off from his visiter, that he might enjoy the society of his friend, and both had *subconclavia* for private uses. The upper servants had lodgings adjacent to their respective offices, and the females and chamberlains their own apartments so near that they could be within call. The butler lodged near the wine-cellar and larder, to which he had access, the grooms near the stables; and so forth. If we substitute the hall of our old manor-houses for the atrium, and mark the divisions of their interior, we shall see that the ancient Greek and Italian plan was, under some changes, the original of such an interior arrangement,

\* Vitruvius, p. 247. sect. 4. pl. iv.

† Ithaca.

‡ F. lxxviii.

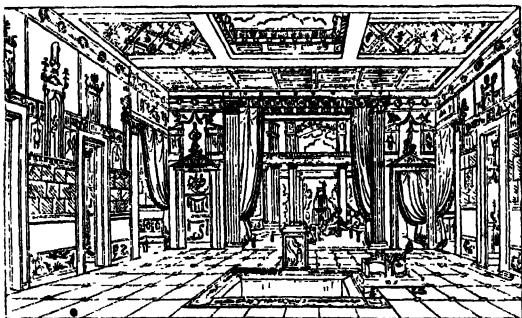
although the feudal military construction, and variation of climate, required a different external form. The



PLAN OF THE HOUSE OF SALLUST.

superior Roman houses were of different kinds: *town-houses*, *insulae*, or rather winter-houses; or *villae suburbanæ*, or estival dwellings, and subterraneous houses, for the heat of summer. Of the first kinds Pompeii

presents excellent specimens, but not coincident in ground plan. We shall select one of uncommon elegance, viz. the house of Sallust, and its interior restored.



INTERIOR OF THE HOUSE OF SALLUST.

Diodorus says, that this entrance and the portico were intended for the use of servants.\* In this vestibule was suspended the civic crown voted to Cæsar†, and upon the side of it was the porter's lodge. Next to this was the *atrium*, or, as it has been sometimes called, the *cavædium*, and would be by us denominated the grand hall. According to Alberti and Vitruvius, it was the place where clients waited upon their patrons; and was what is called in scripture the judgment-hall (of Pilate), and the same as the basilica, there being in it a throne.‡ But these appropriations and uses we shall soon discuss further. No such assimilation occurs at Pompeii, although the atrium in private houses certainly was, like the halls of our ancestors, the usual room assigned for general purposes, such as for the performance of plays, the instruction of pupils, and, in early periods§, for the woollen manufactory of the mistress. It was adorned with the images of ancestors, as our halls were

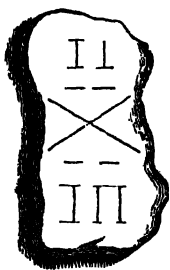
\* Alberti, f. lxxl.

† F. lxxii.

‡ Suetonius, Ovid, &c.

§ Suetonius.

with family pictures, and was, in all respects, a show or state room. There were three kinds of *atria*. The first is the most ancient one, being the archetype of the others, viz. the Tuscan; for Varro\* has "*Atrium, ab Atriatibus Thuscis, ejus primis auctoribus, derivatum.*" *Atrium*, derived from the Tuscan *Atriat*es, its first authors. In this atrium, the roof inclined from all sides towards the centre of the court, and was only supported by four beams, crossing at right angles, the middle remaining open. This fashion appears at Pompeii, the aperture in the centre being what we should call a skylight, and is the Roman *compluvium*: the basin or pond below to receive the rain, sometimes full of fish, being the *impluvium*.† There was one pattern called a Corinthian atrium: it did not differ from the tetrastyle (or four pillars, one in each corner), but by the number of columns which supported the roof, and by the size of the impluvium. It was preferred in splendid houses, because it ventilated in a better manner the surrounding apartments.



The *testudinated* atrium had no uncovered space; the *displuviated*, one with shelving roofs, which shot off the rain from the house, instead of conducting it to the *impluvium*. The first in the plan is of the annexed form; the second, of the form in next page.

The walls of the atrium were not only, as before observed, adorned with family images, but with pictures on general subjects; Pეტონიუს says, with stories from the *Iliad* and *Odyssey*, in the house of Trimalchion. Rosinus says that Cicero‡ is the only author who mentions *cubicula*; and observes, that they appertained to the larger *atria*, in houses which had *atriola*.§

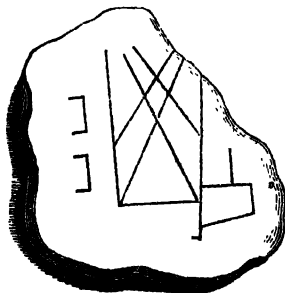
\* Ling. Lat. l. iv.

‡ Epist. ad Quint. l. iii. ep. 1.

† Masoia.

§ Rosin. 45.

These *cubicula*, the closets on the sides, are presumed to have been sleeping-rooms of the male servants; but



Petronius seems to intimate for others also. An iron bedstead has been found in one of these rooms, which was not six feet square, but elegantly painted, and adorned with a tessellated floor: the bedsteads were often placed under an alcove. Trimalchion, in Petronius, says that his house had twenty *cubicula*. The next object is the pond or reservoir in the middle, the *impluvium*; of which before.\* Beyond this is an altar, according to the following lines of Virgil†:—

“Ædibus in mediis, nudoque sub ætheris axe,  
Ingens ara fuit.”

The altar was that of Jupiter Hercæus, to whom the *impluvia* of houses were consecrated.‡

Instead of folding-doors, opening to the next room, are curtains. These are mentioned by Corippus, who

\* Here has been a strange substitution of the *compluvium* for the *impluvium*, and *vice versa*; but Varro, l. 4. de Ling. Lat., settles the question thus:—“Quod relictum erat in medio, ut lucem caperet, deorsum, quo impluebat, impluvium dictum, et sursum qua compluvium, et deinde atrium, ab Atriatibus Tuscis, ejus primis auctoribus, derivatur.”—Rosin. p. 46.

† Æn. l. 2.

‡ From *icæus*, *septum seu vallum*. See the Delphin note on Suet. Aug. xcii.

gives, like the ancient Romans, similar ornaments to the Byzantine atria. In his Justin Minor, he says,—

“ Clara superpositis ornabant atria velis; ”

and again : —

“ Verum ut contracto patuerunt intima velo  
Ostia, et aurati micuerunt atria tecti.” \*

So much for the atrium, which was under the care of the atrienses, whom some accounts identify with the porter in chains, who had a lodge in the vestibule.† In Petronius, the porter is dressed in green with a cherry-coloured girdle, and is cleaning peas in a silver dish. But there were other servants employed in the atrium, besides him. Columella says that the wife ought to insist upon the atrienses cleaning the furniture and brightening the irons, and, if any wanted repair, consigning them to the smiths.‡

Phædrus§ describes these *atrienses* as *alticincti*, who had tunics of Pelusian linen drawn (*districta*) from their shoulders, and hair hanging down in curls ; a costume, of which resemblances may be found in Montfaucon and other writers.

Upon drawing the curtains aside, there appears in the front centre a considerable room with another on the left adjacent, both separated from the garden by a wide window upon a dwarf wall. Between the atrium and this compartment were communicating rooms, or passages, respectively called *alæ* and *fauces* : these exhibit the awkward disposition of such places by the Romans, who seem to have consulted little else than the effect of a view through the whole house from the front door, and a profusion of embellishment in staring colours, like that of toys and waxen images. The two centre rooms are called a *tablinum* with a *triclinium*. The former, according to Festus, was a business-room, or office, near the atrium ; others make it a wardrobe, store-

\* Rosin. 46.

† L. xii. c. 3. Rosin. 46.

‡ Kippingius, 687.

§ L. ii. fab. 36. Rosin.

room, or picture-room; but the last was styled *pinacotheca*, and there was an acknowledged difference between them.\* Upon this little stress can be placed, because in the best representation of the private life of the Romans, the *Satyricon* of Petronius, the steward is busied on accounts in the upper end of the triclinium.† This was the denomination of a dining-room, which certainly was connected with the atrium. The room was so called from its having three dinner-beds, and there were different *triclinia* according to the season. Petronius observes that the fasces, as ensigns of dignity from office, were fixed on the posts of the triclinia, and that a lamp with two branches was suspended, and two tablets affixed on both posts: one had an inscription importing that the host was engaged to dine out upon certain days thereon named; the other showed the course of the moon and Pleiades, and the lucky and unlucky days.‡

Beyond these two rooms was a walk under a roof and pillars, called a *porticus*, resembling a cloister; and such parts of our monasteries were evidently borrowed from the Roman fashion, and applied in part to the same uses. There were in large houses several porticoes.§ They were distinguished by particular names. Ovid mentions one called *Livia*, which had the name inscribed on a tablet, as we have that of a street.|| It was the custom of the Romans, like the Greeks with their *stoa*, to paint histories, fables, and many other things, on the walls of their porticoes, and place under them inscriptions, which loungers used to read. Boys with their masters played there; tutors gave lectures, and persons spouted declamations; for which, if not approved, they were stoned and insulted by the auditors: and it is said that hence came similar uses of the porch in our churches.¶ Artificers also exhibited in it their goods; and in bad weather the

\* Burm. in Petron. i. 530.  
 Primâ parte Burm. Petron. i. 150.  
 Id. i. 525.  
 Id. i. 36. 39. 569.

† Id. i. 151, 152.  
 || Id. i. 525.

Romans used to take their exercises of the *ambulatio* (walking), or *gestatio* (being carried in a litter), or being drawn along them in a chariot and mules.\* Behind this was, in the house, called Pansa's, a garden, surrounded also with a portico, and it had beds and walks, divided like a gridiron. In this house of Sallust there was, instead, a kind of pseudo-garden, or conservatory. It is thus described : — The back wall is pointed with pilasters, shrubs, and trellis-work. Behind the columns, upon a double wall, were planted flowers and shrubs. There were a fountain and two cisterns, one at each end. Effect was not wanting, though often good taste, in



Roman works, was wanting (for instance, the lower portions of the columns and pilasters are here painted blue); notwithstanding, it is one of the most interesting and novel prints in the Pompeiana. -

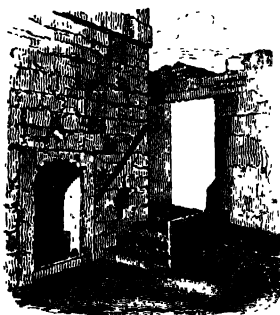
The stand for a table and trichlinium, which command a look down it, show that the family used sometimes to dine there.†

Trellis-work appears ; and Winckelmann says that *pergula* in one sense signified a sort of veranda, formed of strong reeds latticed ; though some make it a gallery at the top of the house, or a balcony, or a connection with the portico for training vines and creepers.

\* Ency. of Antiq.

† The Roman *cena* was no other than our late dinner ; to translate it supper occasions only confusion

Upon the right side in the plan appears the *gynæconitis*, or suite of apartments for the women, also within a portico. Here the mistress and her maids conducted the *lanificæ* (as making garments, spinning and weaving, were called); and Jerome, in his Epistle to Demetrius the Virgin, says, "Always have wool in your hands." The portico was necessary because Columella says they could not work during bad weather in the open air.\* Here were employed, besides the mistress and her immediate attendants, females called *quasillariæ*, from their baskets, who sat upon wooden blocks, and were deemed "a race



of *ancillalæ*," the most dirty and despicable.† Adjoining to these apartments was the kitchen. This is engraved in the "*Pompeiana*," p. 151., as above. It has a dresser and privy, a filthy appendage, brought from Greece, and still retained in modern Italy. Mr. Shortt‡ adds, at the back of the house [this] the great kitchen furnace is visible, and above it is a small staircase, which led to the upper part of the building, under which the "*hypanis*" or "*ædes cloacinæ*" is placed. In the house of Pansa there were stoves; and the kitchen opened into a court, in which were dwarf walls for the arrangement of oil jars, needful in this instance, apparently, for supply of the lamps. There were very small

\* Rosin. 36, 37.

† Burm. Petron. l. 811.

‡ P. 48.

dark rooms below for the slaves belonging to the department ; and nests of closets annexed to offices for the same purpose occur in Roman villas discovered in this country.\* There was a small aperture for the escape of smoke. Like our kitchens at Glastonbury and Stanton Harcourt, Columella recommends the roof to be so high that it could not catch fire. In the most ancient kitchens known, those at Ispica in Sicily, of the Cyclopean era, is a sort of little furnace, before which are mortars hollowed out of the rock.

These are all the apartments connected with the establishment in the plan. But on each side of the doorway were shops. The custom is still retained in modern Italy; and in London also there is often a passage which leads to a handsome building in the rear. The royal exchange, like the Roman houses, is now surrounded with these sheds. Of course the houses had no other architectural frontage than a door, sometimes between pilasters, and sometimes not. The following is the entrance elevation to one of these houses.



The shops resemble those of our butchers and fish-mongers, being in front open.

The Romans, even of opulence, used to carry on trades by means of domestic slaves who understood the business, whatever it might be ; and, accordingly, Mazois mentions shops of two sorts at Pompeii. Those of the kind mentioned have all a communication with the interior of the habitation ; while the others, of independent tradesmen, form, with their offices and rooms, a division separate from the rest of the building. Both in Greece and Italy particular trades lived in peculiar streets ; and we hear of those of the trunkmakers and carvers at

\* As at Wilcombe.

Athens, and the Vicus Thuscus at Rome for woollen goods.\*

At Pompeii one street is called that of Dried Fruits, from the quantity of raisins, figs, plums, &c. found there. There are also shops variously dispersed and distinguished by signs fixed in the wall (as a marble goat for one), where milk was sold †, and other *indicia*. These are occasionally curious. In the house of a medical man, as presumed from chirurgical instruments there found, and a small well, with two chambers behind (for some therapeutic uses), was excavated † a statue of Æsculapius, with emblematical frescos; and at an apothecary's the articles mentioned below:—the shop of a pavimentarius, or worker in mosaic (as supposed), was denoted by a circular checkered sign ‡; and that of a wine shop, by two men carrying an amphora upon a pole, resting on their shoulders. § These signs are fixed in the walls, and Plutarch adds to them decoy placards and showboards (*venalitia*). At Herculaneum a loaf has been found in a baker's shop, with his name stamped upon it thus: "Cleris Q. Crani Riser." At Pompeii, scales, money, and moulds for pastry and bread, in bronze, of very elegant pattern. On the counter of an apothecary were a box of pills, converted into a fine earthy substance, and near them a small cylindrical roll, prepared to be cut into pills, and a jar containing medicinal herbs. || In a fruiterer's shop were vessels full of almonds, chestnuts, walnuts, and fruit of the "carubière" (the *carob tree* of the Levant, the pods of which were the husks, given to swine, that the prodigal desired to eat). ¶ In the shops of the "street of fruits" at Pompeii, besides raisins, figs, and plums, and various fruits, moist olives, and caviare, a pickle, preserved in glass cases (some square), have been also found. \*\*

The following shops or houses of trade at Pompeii

\* Plut. Dem. Socrat. Lubin. in Juven. 258.

† Shortt, 48.

‡ Ibid.

§ Pompeii, 124.

|| Mrs. Forbes. *Edinb. Journ.* Jan. 1829.

Lyell's *Geology*, i. 356.

¶ Harris's *Hist. of the Bible*, 208.

\*\* Lyell. *Pompeii*, p. 114.

have been particularly distinguished; viz. that of an inn, checkers being placed on the side of the doorway, and rings for tying horses having been found, as well as the bodies of cars, the bones of horses in the stables, and earthen vessels for wine in the cellar. The stables, each of which is large enough for a single horse, extend for a long distance up the street. Above them are white marble columns, and a staircase is seen, which conducted to the apartments for strangers above.\* In the yard are three fountains. Inns were not reputable places; and Romans of rank used to send their bakers and cooks before them to take up lodgings at friends' houses, if there were any in the place, if not, at inns, and, where there were none, applied to the magistrates for quarters.† Suetonius and Juvenal describe inns as places frequented by muleteers, travellers, cut-throats, runaway slaves, sailors, executioners, coffin-makers for the poor (*sandapilæ*), players on the tambourine (*Galli*), where all were on equal terms, without any distinction of cups, or particular bed or table.‡ A Syro-Phœnician used officiously to offer his services to anoint the visiter, and call him "Dominus and Rex," and a girl from Cyane, with tucked up clothes, to bring him wine to taste.§ Juvenal adds painted cloths used as signs.|| The adulteration of wine, and sale of it by false measures, were common¶, and this dilution caused the joke in Petronius of inn-keepers being born under the sign *Aquarius*. \*\*

Socrates used to boast that he had never even looked into a tavern††; and Plutarch‡‡ says of inn-keepers, that they derided those who would not play at ball and idle away their time.§§ This inn at Pompeii precedes the gate, and the first edifice upon passing it is a *πορνείον*, lupanar, or brothel, having five or six cells, and a sign of the Phallus, which is not certainly indica-

\* Shortt, 46.

† Suet. Vitell. vii. Juv. l. iii. Sat. 8.

‡ Id. 568.

\*\* Burn. 238.

‡‡ De Conserv. Sanct.

† Plut. in Cato, Jun.

‡ Lubin. in Juv. 368.

¶ Casaub. in Theophrast. 244.

†† Burn. Petron. 857.

§§ Shortt, p. 47.

tive of such an appropriation. Opposite to the *πορνείον* is a wine-shop, *thermopolium*, which has a counter different from others by the annexation of steps at the end.



These steps were intended, says Mazois, to hold the vases or ewers from which they mixed the liquors, for the Roman wine being thick and syropy, could not be imbibed in an undiluted state; and Winckelmann mentions cups and stands, like saucers, of silver, out of which the liquor was drunk in a tepid state. On the marble counter are still to be seen the marks of the cups, and at one corner of it is a basin, in which they were rinsed. Next door to this *coffee-house* is a house called a *saponarium*, or soap-house, from certain troughs in which soap is said to have been made, but whether *soap* was then known is controverted. A substitute is admitted. In the counter of one shop are holes, in which were sunk large jars for holding the vendibles sold, and to this shop was annexed a back room, and perhaps another on the side.\* We are told, that in front of the counter the shutters were slipped in a groove, and the door closed met the edge of the last, and, when fastened, kept all secure. The door turned on pivots, and, of course, opened to the left. Some of the shops are under an arcade, a terrace with other shops, and part of a house being above. Other shops, by the remains of staircases, appear to have had upper

\* *Pompeiana*, p. 196. vignetta.

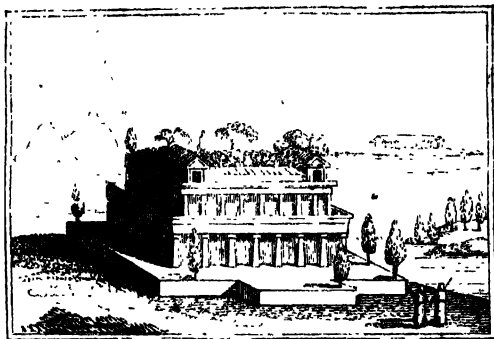
rooms. In them are dwarf walls, against which were ranged oil-jars and other goods. The shops have stone seats before them, and emblems of the trade in relief.

*Villas.* — No person so well explains the principles of the ancient Greeks and Romans, in the situation and construction of their edifices, as Alberti, an Italian architect of the sixteenth century. He says \*, concerning a *suburban villa*, that Xenophon recommends the site to be one to which people could go on foot, for the sake of exercise, and return on horseback. It should, therefore, not be too far from the city, and the road easy (not *impedita*), but fit and very convenient (*peropportuna*) for going and coming in winter and summer, whether it be in a carriage, on foot, or perhaps in a ship; and it will be better if it be not far from the gate of a city, that the proprietor may travel backwards and forwards without a greater apparatus in dressing, and notice by the people of himself and family. He then proceeds to matters of climate, as affecting the situation; but continues to observe †, that the town and country houses of the wealthy (*villa et urbana*) had this distinction: — the former was a summer *diversorium*, the latter for better endurance of the winter. From the former they derive all the pleasantness of light, air, room, and prospect. In the town are only to be expected what refers to utility, dignity, and health; and if such houses, for want of space, cannot have a portico, ambulatory, a place of exercise, and garden, amends may be made by piling one building upon another, and sinking cellars with superincumbent edifices. The following, from a Pompeian painting of such a limited villa, is a good specimen. This principle was consulted in the suburban villa at Pompeii, which, on the ground floor, consists wholly of a portico or piazza, and has above a mass of apartments without any uniformity whatever. Rome only began to have houses with stories towards the end of the republic; and the uppermost rooms, or garrets, were the dining-rooms, hence called

\* F. lxxiii. a.

† F. lxxix.

*cœnacula*. The same denomination was, however, applied to the habitations of the poor in meaner houses ;



and such garrets still exist at the ruins of the *Ruffinella*, under the ancient Tusculum. The houses at Herculaneum have been found to have only a single story ; one with *two* has occurred at Pompeii : and, however Pliny may describe a villa, as having only a ground floor, it appears from that of Hadrian, and the baths of Antoninus and Dioclesian, that there were in places three galleries, or tiers of apartments like those of inns, one above the other. Because persons resident close to the sea experience no inconvenience from great heats, it was a favourite custom to build houses even within the water. The villas of Cicero and Lucullus were both so situated ; and one discovered at Herculaneum impended over the sea : a long alley led from the garden to a summer pavilion, of circular form, pierced on all sides, and standing just above the water. This must have been a triclinium, or dining-room, for it accords with a similar edifice at Pliny's Laurentine villa, and with a painting found in the baths of Titus, engraved by Montfaucon. The Herculanean villa, described above, enclosed a large piece of water, of which the two extremities terminated in a portion of a circle. Around

this pool there were compartments of a garden, and through the whole length of the enclosure a row of brick columns stuccoed, twenty on the longest, and ten on the shortest side. These columns supported beams resting by the other end upon the wall of the enclosure of the garden, and by this means formed a bower or arbour around the pool. Under this shelter were *boxes* (as we call them) of different forms, whether for conversation or for bathing, some semicircular, others square; and busts, as well as figures of women in bronze, were placed alternately between the columns. The reason why the pool was constructed of bricks was, that a moat surrounded the exterior wall, as in the garden of Alcinoüs, described by Homer\*, and mentioned by Columella and Palladius. At Gragnano, the ancient *Stabia*, near Pompeii, was a similar *villa*, with a pond in the centre, divided into four equal parts, each crossed by a bridge of one arch; and around it, on one side, were ten compartments of a parterre, and on the other, *boxes* similar to those before described. The garden was surrounded with a wall, both within and without the enclosure, which, there being no vestige of aqueducts, must have been intended for a canal to hold rain water.† The jumble of buildings in Roman edifices was so great, that it is impossible, except by remains or *paintings*, to form an accurate notion of them. The latter, in the "Pompeiana," exhibit one villa‡ on the very border of the sea, of two stories, with a garden and trees on the flat roof of the second story, and others, but none alike, although all are connected with pieces of water. The latter, Pliny says §, was imperfect in his villas, "for want of water pipes, by means of which he could see the water playing and spouting out, a defect which he supplied by wells;" and Plutarch || mentions a dry well in a garden. The term *villa* signified either a manor, farm, or barn, or a house of pleasure, built by great men,

\* Od. N. v. 129. Colum. Re Rust. viii. c. 17. Pallad. i. c. 17. Winckelmann

† Ibid.

|| De Virtut. Fœmia.

‡ Pl. 54.

§ Montfaucon.

and exceedingly magnificent: of this character were Hadrian's villa at Tivoli, and Gordian's on the Via Prænestina. Of such extent were these, that they resembled towns; and in such fabrics were often settled whole families of artisans and servants. Aurelian placed in the villa of Valerian, called *private*, and given to Ulpian Crinitus, 500 slaves, 2000 cows, 10,000 sheep, and 15 she-goats (for milk).\* The villa of Lucullus was proverbial for its plenty. Of more humble country houses, Martial † gives picturesque accounts. That of Faustinus at Baiæ he describes as situated in a field, and surrounded with corn, cattle, geese, cocks, hens, &c. There were towers, in which pigeons were kept; pigs, that followed a female servant who fed them; large fires for the servants, fishermen who used nets, or angled; country people, who called with presents of capons, as did stout girls, the daughters of the farmers, and modes of living which evinced great hospitality. In other villas he, however, says, there were neither fruit, kitchen-garden, nor poultry ‡; and he describes Bassus as travelling into the country with a cart, loaded with cabbages, lettuces, thrushes, hung round a circle of twigs, and a servant running before the cart, loaded with eggs.

A high tower for prospect, a vineyard, according to Varro, and a garden, were usual accompaniments, besides offices, to a villa. Pliny describes his garden as set with mulberry and fig trees, and a vine in the middle; a walk encompassing it bordered with box, or, where the box ended, with rosemary. The box trees were clipped, as now, and the topiary art was in general use; so whimsically, that servants inscribed the names of their masters in box, or scented herbs.§ An inclining situation, with a falling stream, was preferred for gardens. Indeed, the occurrence of springs breaking out in unexpected places was deemed a great addition; and an old painting exhibits them so disposed, as to bubble and form petty cascades in rushing from piles

\* Vopisc. Hist. Aug. ii. 274. ed. Sylburg.

† Id. 47.

‡ iii. 57.

§ Alberti, f. cxll.

of rocks, probably artificial, and made of the "*vivus pumex*" of Ovid, the ancients being accustomed to make grottoes of this kind.\* A portico and eating rooms looked out upon the garden. Upon the Nasoni sepulchres are represented walks formed of lathwork interlaced with vines. A statue of Priapus, and other statues, vases, busts, and similar ornaments, were usual.

The offices annexed to villas of consequence were very numerous. They shall be arranged alphabetically.

*Apiaries.*— So were called places planted with herbs, suited to bees, and odorous shrubs, and situated near a spring or rivulet which had small holes: these were to be covered with transverse sticks, that the bees might more easily drink. No offices which emitted a bad smell were to be adjacent, and herbs of bitter taste were to be eradicated. Varro relates an instance where one of these apiaries, not larger than an acre, never produced less than 10,000 sesterces from the sale of the honey.† In such a garden the *castreo apium* were placed against a high wall, to exclude cold winds. Varro states hives to be made of basket-work, wood, bark, hollow tree, pottery, or of reeds (*ferulis*) worked so as to be contractible, according to the size of the swarm. Those of pottery were smeared within and without with cow-dung, that they might not deter by asperity, and were placed on the corbels of a wall, lest they should be shaken or touch each other. When they were thus disposed in order, and an interval made, they added a second and third rank below, but not a fourth. In the middle hive, by which the bees enter, they made little holes (*foramina*) on the right and left. At the extremes, where the honeyers (*mellarii*) were able to take out the comb, they put covers on the hives: the best of these were made of bark, others, found at Herculaneum, of bronze, the worst of pottery, because they were too cold in winter, and too hot in summer; some were made of transparent stone, to show the bees at work. Sallustius says, that the best hives were those made of cork, but

\* Alberti, lcxl. and Montfaucon.

† Lib. iii. c. 17.

that they *might* be made of ferules ; or, if these were wanting, of willow twigs, or of wood of a hollow tree, or of boards, in the manner of vessels made of staves (cuparum). On account of reptiles and noxious animals, he recommends the stands to be three feet high, and to be covered with plaster and whitewash ; the hives upon these *podia* being protected from rain, and separated by small intervals, a narrow entrance being left to admit the swarms. But none of these entrances



were to be exposed to the winter's sun ; they were to be in number two or three, of the size of a bee, the smallness of the orifices preventing the entrance of noxious animals, and the number allowing escape for the bees in case one particular hole should be besieged.\*

Varro† says, that at first the hives were placed under the eaves of roofs.

*Aviary* (Ορνιθεον, ορνιθοζωειον).—Varro says that the first fashion consisted only of a place upon the ground where hens and chickens were reared in a sunny situation with a net stretched above, to prevent escape, and the irruption of hawks.‡ Palladius directs that aviaries should be placed around the extreme walls of courts, because the dung was so beneficial to agriculture.§ These remarks are applicable to the common poultry yards, hereafter described ; but the improvements of them, viz. *aviaries*, were afterwards constructed upon so magnificent a scale, as to exceed the size of villas, and to include preserves (leporaria||) of many acres, for rearing boars, she-goats, and those animals enumerated by Martial, viz. geese, peacocks, *phœnicopteri* (birds all red), partridges (tame, different from those of the field), pheasants, guinea-fowls, Rhodian hens, and ducks (omitted by him), but not turkeys. Hares, rabbits, and deer, were also preserved.¶ The place where waterfowl were kept was denominated

\* Re Rust. p. 254.

† Id. 186. 201.

‡ Id. 187.

§ Id. 186.

¶ Id. 238.

¶ Montfaucon.

*chenotrophium*, and Tiberius put to death a Prætorian soldier who had stolen a peacock from the viridarium\* (an enclosure for such animals). Thus a sort of game laws then existed in our old Norman severity. Varro's was the most splendid thing of the kind known; and the plan of it by Ligorio, given by Montfaucon, is presumptively correct. It consisted of two double oblong square colonnades netted all over, on each side an entrance, then two walled ponds; beyond them another circular double colonnade, likewise netted over. This enclosed a terrace and a pond, in the middle of which, upon an island, was a domed triclinium or eating room.

*Ponds (Piscinæ).*—Palladius says that there ought to be two ponds adjacent to villas, either impressed in the ground, or made of carved stone, and supplied from either springs or rainwater. One was for the use of the cattle or waterfowl, the other for wetting twigs, skins, and *lupines*†, and whatever things country business (*rusticitas*) was accustomed to infuse. There were *farm-ponds*, quite distinct from *fish-ponds*, of which there were two kinds, those of fresh and those of salt water. Varro‡ seems to hint, that the Romans began with ponds, which contained only *squalos* (thought to be skate or rays) and mullets; but that they afterwards so despised this kind of ponds, that they did not care whether they were filled with these humble fish or frogs, and afterwards extended them into the sea, and collected all sorts of sea-fish. The Romans deemed fish among the first of luxuries; and the account given by Varro of their reservoirs is so curious, that it shall be given at some length. He says, that there were two kinds of fresh and salt water; one usual among the people, and without benefit, being a common pond; the other maritime *piscinæ* of the nobles, for which, as Neptune furnished water, so also fish, but more for the eyes than the stomach, and more adapted to exhaust

\* Suet. lib. ix.

† *i. e.* The grains macerated and eaten with brine, or with that and vinegar. See Pliny, &c.

‡ lib. 3. 187.

than replenish the purse. For, first, they are built at a great cost ; secondly, kept up at a great cost ; and, lastly, fed at a great cost. C. Hirtius used to derive an income of 12,000 sesterces from his ponds, but spent that sum in providing food for his fish. He lent Cæsar 6000 lampreys, and through the multitude of fish sold his villa for 40,000 sesterces. His ponds were divided, for various sorts of fish, and as carefully preserved as the fish in Lydia for sacred purposes, which assembled at the sound of a Greek trumpeter, and no one dared to take them. Quintus Hortensius, although he had fish-ponds built at a great expense at Bauli was so fastidious as to buy fish from Puteoli for his dinner, because he did not think his own fish good enough, unless he had superintended and regulated the feeding of them. "And he had more care," says Varro, "lest his mullets should be hungry, than I have lest my asses should be so in the Rosea \* ; and he supplies them, in both respects, with meat and drink, at not a little more expense than I do them. For Hortensius had first many fishermen employed in catching small fish to feed the larger ; and, besides, used to throw bought sausages into his ponds, when the sea was disturbed, that he might furnish them a delicacy, when a drag net would not procure them live food of common fish. He had also as much care of sick fish as of a sick servant, in supplying them with cold water." Thus Varro. Alberti adds †, that the ancients in their maritime fish-ponds peculiarly desired to have them so situated, that the water of a fresh tide would expel that of the preceding. This expense about fish-ponds is not to be wondered at, when we know that Cato the elder said that a fish was sold for more than an ox.‡

*Doverots* (περιστεροτροφειον).—The ancients distinguished two sorts of pigeons, the wild or rock pigeon, of various colours, and the white sort, which was fed within the gates on domestic food. From these sprung a mixed

\* Fields of Reate, always moist with dew.

‡ Plut. Apoth.

† F. lxxv.

breed, which were collected even to the amount of 5000 in one dovecot, or *περιστῆσις*. That of Varro was a vault covered with a large chamber, a narrow mouth, and small windows reticulated on both sides, that the place might be light, and no vermin enter. Within, all the walls and chambers, as well as the windows outside, were smeared with marble plaster, to prevent mice and lizards creeping up to the cells. To every pair was appropriated one of these cells, which had an entrance. There were as many rows of these as could be placed from the ground to the chamber, and shelves for vestibules were affixed to each row. Palladius mentions only a little tower, built in a house, or yard (*prætorium*) with smooth and whitewashed walls, and windows only large enough for the entrance and departure of the birds. Nests were fashioned within. In the dovecots for turtles, in particular, Varro recommends, instead of the holes for nests, brackets or stakes in the wall, which were to be covered with mats.\*

*Leporarium*, or warren.—This was enclosed with a lofty fence, which was covered with a roof; one to keep off cats or badgers, the other to prevent wolves leaping over it. There were also to be hiding-places, where the hares might be concealed among shrubs and herbs, and lofty trees with spreading arms, to impede eagles from carrying them off. Boars, she-goats, and tame animals, who were called to feed by the sound of a *buccina* (or horn), were also kept in such places; sometimes also woods, walled in, like parks, and called *θηριστροφία*. Quintus Hortensius had in one of these a lofty place, where was a dining-room. To amuse himself with the congregation of the animals, Quintus ordered *Orpheus* to be called, as he denominated the *buccinator* alluded to.†

*Stable*.—Stable was a generic term applied to retreats of animals of all sorts, and to brothels and road inns; *præsepe* was loosely used in the same manner, but *equile* was the definite term for our *stable*, and *præsepe* for the

\* Re Rust. 194—197. 239.

† Varro, iii. 12—14.

manger.\* The latter was called also by Vegetius *patena*†, defined by Columella *vas latum*, a broad vessel. The Greek and Roman heroes were horse-breakers. Andromache watered the horses of Hector, and Xenophon wrote an elaborate treatise upon horsemanship. From him Berenger‡ extracted the following description of the Greek stable. It was to be so situated, with respect to the house, that the owner could see his horse frequently; and the stall was to be so managed, that the provender could not be easily stolen out of the manger. The floor was to decline, and to be pitched with stones, each being about the size of the horse's foot, a practice still in use; and, as now, the horses were confined to the manger by a halter. The stable-yard was also paved with round stones, bound with a rim of iron, to keep them close together. The intention of this paving was to harden the hoofs, shoes not being then worn. Besides the stable-yard, there was a place for the horses to roll themselves, and Apulcius, when metamorphosed, mentions the pleasure which he found in such an act. When the horse was to be cleaned, he was muzzled, and led out of the stable. The groom stood sidewise, that the horses might have a better appetite: they were turned away from the manger after the first meal. As to the Roman stables, they had, of course, distinctions of elegance, according to the rank of the parties; and the accounts of the old authors show that the construction of the rack, manger, and windows, were connected with fanciful medical principles, one of which was, that moonlight was injurious to horses.§ In a general view, Columella recommends that stables should not be built of a height greater than that under which a horse or an ox could conveniently stand. The goddess *Hippona*, which Lulinus contends ought to be denominated *Epona*, was the patroness of horses, and Apuleius|| mentions a pier for supporting beams, upon

\* Suet. Calig. lv. Burm. Petron. 41.

† Horsemanship, i. 232—238.

|| Met. l. iii. 66. ed. Rip.

† Re Veterin. i. 56.

¶ Alberti, f. lxxiv. b.

which pier was placed an image of the goddess *Epona*. At the inn at Pompeii every horse had a separate stable; but Varro mentions a division by bars, called *longurii*, between the mangers (*præsepia*). The hay, which was particularly directed to be dry, was placed in a loft (*tabulatum*), and the other general food was barley.\* The litter and dung were removed every day; for, no shoes being used, it was thought that standing in warm or moist matters would impede the induration of the hoofs.† Palladius recommends strong oaken planks with straw to be placed, that it might be soft to the horses, when lying down, and hard to them when standing. According to Juvenal‡, figures of gods were painted upon the mangers; and in imperial stables was annexed a portico, painted with subjects relating to the public exhibitions.§

These were the offices of higher rank. Those belonging to the annexed farm are thus particularised: there were to be, ox-stalls (*hubilia*), warm, like the stables in winter; with good *præsepia*, having cribs (*faliscas*) or racks barred (*clatrutas*), each bar being a foot apart; for thus the cattle would not waste their food. According to Palladius, they stood in pairs, in divisions eight feet apart, and fifteen long; and he recommends the following adjuncts:—1. a fire to be near, because it would make them *nitidiores* (more sleek)||; 2. cellars for holding the wine and oil vessels, on level ground and dry places; 3. lofts planked, for beans, lentils, barley, wheat, and hay; 4. a place for the servants to retire to when weary with work, cold, or heat; 5. a chamber for the bailiff near the gate, to see who came in or out; 6. a kitchen, that, in winter, all the food might be prepared before day-break. Alberti says, that it was large and not dark, secured from fire, and having an oven, fireplace (*focus*), water, and privy; adjacent to it, a *tablinum* (here a room made of boards), where the better sort might sleep and

\* Varro, *Apul.*, &c.

† “Ne sternis comberat ungulas cavendum.” — *Varro*, l. ii. c. 7.

‡ *L.* iii. s. viii. v. 157.

§ *Hist. Aug.* ii. 303.

|| *Re Rust.* 6. § 4. 238.

keep a bread-chest, bacon, and lard; 7. wain-houses; 8. in a large farm, two yards: one (the inner) with a pond of running water for the cattle to drink at, and geese and swine to revel in; the other with a pond also, for the maceration of lupins, before mentioned, and other uses. This outer court was frequently to be covered with straw, to be trodden into manure; 9. two dunghills near, or one divided into two, for young and old dung; over which were sometimes placed (10.) a barn (*nubilarium*), for storing the whole harvest, built close to the threshing-floor, open on that side sufficiently to eject the corn for threshing, or return it when it began to rain. It was to have windows in the part most adapted to ventilation. Thus Varro\*; and it is noticeable how well his description suits our modern farm-yard: it does not, however, include the following offices: the

*Pistrinum*, or *pistriv* (as Varro), a mill or house for grinding corn, and including, also, a bakehouse. The corn was ground by a mill turned by asses, or, where it was practicable, by water.

*Pigsties* (*haræ*), even ten in number, in Cato.† The sties were to be about three feet high, and somewhat more in width. They had a door above for the sow, and a smaller aperture below for the young pigs. To absorb moisture, the sties were strewed with sand.‡

*Poultry yards*, &c. — If you wish, says Varro, to keep as many as two hundred hens, let an enclosed place be selected, in which two large coops (*caveæ*) may be conjoined, looking towards the east, both about ten feet long, less by a half in breadth, and a little lower in height. To both let there be windows of three feet in breadth and four in height, latticed with twigs, so as to give much light, and keep off any thing hurtful from entrance. Between the two let there be a door for the gallinarius, or keeper of the hens, to go to them. In the coops let there be frequent perches, enough to support all the hens. Against each perch let their beds

\* Lib. i. c. 13.

† C. xv.

‡ Varro, l. ii. c. 5.

(*cubilia*) be sculpted in the wall, before the enclosed yard (*vestibulum*), in which they may be in the daytime, and roll in the dust. Besides, let there be a large cell, in which the keeper may live, so that all the beds of the hens may be set in the walls around, either cut out, or firmly affixed.\* The eggs of peacocks were hatched under hens; but the peacock-house was large according to the number, and had separate beds, covered in, to prevent the entrance of reptiles or animals.† For the amphibious fowls, geese and ducks, ponds, called *χρηνοβωσκεία*, were required; and sties (*hære*) above, or caves under ground, were adjacent. These were to be about two feet and a half square, with dry ground for a floor, and to be strewed with straw. The *νεοσσотροφεία* for ducks were to be placed in a marshy ground, or at least near a natural or artificial pond. They were to be enclosed with a fence fifteen feet in height, and had one door. Around the wall was a brim inside, in which were placed covered beds for the ducks; before them a vestibule, made smooth with brickwork. To that running water was admitted, and food placed in it. All the walls were smoothed with plaster, to prevent the intrusion of cats or other injurious animals; and a net with large meshes was drawn over the whole, to impede the irruption of eagles or escape of the ducks. There was always to be a large supply of fresh water for the ponds.‡

Besides these, presses (*torcularia*) for wine, oil, or cider, of very complex construction, with timber, and unintelligible by words, occur, as well as petty things which are given in detail by the authors *De Re Rusticâ*.

There remain to be described *subterranean houses*, retreats from the heat of summer. One consists of a *souterrain* and ground floor above, with private passages and closets, the other has many rooms with passages. These rooms are painted (as usual with the Romans) in fresco, of arabesques and figures of ani-

\* Varro, iii. 9.

† Id. iii. 6.

‡ Id. iii. 12.

mals, and have, upon the friezes, bas-reliefs, fastened with leaden nails.

The authors *De Re Rusticâ* do not mention the cottages of the poor: but one appears in the Pompeian paintings. It is like the modern, thatched, and has the door at the gable end, but no appearance of any windows. The door, as customary with the Romans in most instances, was very low. Ovid, who, in his *Baucis and Philemon*, describes a cottage minutely, notes fitches of bacon suspended from a black beam, and dry branches for firing hoarded in the roof.

**TOMBS.** — According to Plato, the conception of sepulture was coeval with an opinion of the immortality of the soul. Be this as it may, it is certain that the natural suggestion of designating a place of interment by elevation of the turf occurs among the Australians†; and that barrow burial is the most ancient known. Of the existence of that in all countries nothing need be said. The Pentateuch mentions cavern burial. Abraham probably derived this hypogæan fashion from the Egyptians, the people of Upper Egypt and Ethiopia being the first civilised nation known, and ancestors of the Pelasgi of Etruria and other countries. Strabo observes that the walls of the Temple of the Sun, at Heliopolis, were charged with paintings similar to those of the Pelasgi of Etruria; and there are other and numerous coincidences which show that the worship of the Pelasgi of Italy and Greece was connected with that of Upper Egypt and Ethiopia.† Like the tombs of the kings at Thebes, those of the Etrusco-Pelasgians are grottoes or chambers, under a small hill, perforated below for a door, and at top for light. They are full of paintings (as are the Egyptian tombs), referring, says Paciaudi, to the passage of souls to the Elysian fields. In some instances, even embalment seems to have prevailed; for in 1485 the entire body of a woman so preserved, and laid in a marble sarco-

\* Oxley's Travels.

† Seconde Mémoire sur les Pelasges. Mém. Instit. iii. 48. 138.

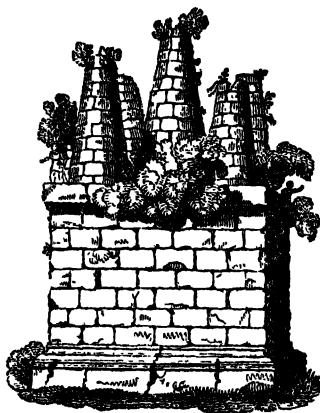
phagus, was found in a sepulchre near the Via Appia.\* Another Egyptianism is noticeable. In Fabretti are several inscriptions, containing invocations to Osiris for cold water, from the supposed thirst of the dead, and at this day, in India, pitchers full of water are hung upon the trees, adjacent to a grave or place of sepulture. A curious occurrence of vases for this and similar purposes appears in an extraordinary Etruscan tomb, found in the Tiphatine mountains by sir William Hamilton. The skeleton was laid at length. A fly-fan, with iron sticks, two large iron chandeliers, vases suspended to bronze nails, two iron swords, a wine strainer, consisting of a deep bowl, perforated with holes, and provided with a handle and saucer without holes, a bronze bowl, in which was a *simpulum* attached to a long handle, and used as a ladle, two eggs, and a grater, were found. The vases were not cinerary. They were the customary drinking vessels found in tombs, through the supposed thirst of the dead previously alluded to.† Nothing can be more plain than the cause of this addition of provisions. The ancients looked upon the soul as the shadow of the living man, and that it had the faculties of thinking and talking, though very imperfectly; for which reason, Homer calls these shadows *αμερυνα καρηνα*, weak bodics. The dead, indeed, according to Homer and Socrates, lived a sort of life that resembled a dream, and therefore it is that many epitaphs begin with these words, "ETERNALI SOMNO." They were also thought to frequent the place where the body lay. Here were placed the provisions, because Lucian says these ghosts derived their nourishment from the libations and funeral sacrifices at tombs; so that, if any of them had no kindred or friend left upon earth, then that ghost had no food, but starved with hunger. But this was not the only imitation of Egyptian fashions. Others, says Alberti‡, will, perhaps, praise our Etruscans, because they did not much yield to the Egyptians in the magnificence of

\* Montfauc. vol. v. part. i. b. iii. c. 4.

† Ency. of Antiq.

‡ F. cxxi. a.

similar works ; and among others, that of Porsenna, who, beneath the city Clusium, had a tomb of square stone, under whose base, 50 feet high, was an almost inextricable labyrinth (as has been said of the pyramids of Egypt), and over it five pyramids, one in the middle, and one at each corner. There were other annexations not intelligible. This tomb, which is unquestionably the



most ancient pattern of Roman mausolea above ground, has the same number of *termini* as the barrow of Alyattes at Sardis in Lydia, described by Herodotus, and still remaining ; the basement, which is square, supporting five conical pyramids. A pyramid was placed on the top of the celebrated mausoleum of Artemisia, and pyramids also adorned the tomb of Scipio. Besides, the Etruscans were Lydians, at least that portion of them who were called Tyrrheni.\* The imitation of pattern is therefore explained. But the Etruscan tombs were mostly vaults or grottoes, containing those elegant vases which have been so justly

\* Herodot. Clio, 93, 94.

admired. All their arts seem to have been, in the opinion of count Caylus, assimilations borrowed from the Egyptians. They were, perhaps, the first of all potters ever known; for the prince of Canino says, that aquafortis will not affect the paintings of these vases.\* We hear also of fictile sarcophagi, large enough to admit the whole body at full length.† But terra-cotta was not the sole material of vases made by them. At Viterbo, where Etruscan sepulchres are frequently found, was discovered a bronze vase, containing bones, the outside of which vase was covered with cloth of asbestos; and it is reasonably presumed that the body was burnt in this cloth, because it was a Roman practice.‡ Millin makes it a distinction of Etruscan sarcophagi, that upon nearly all of them is a Fury or a Genius, armed with a torch, which uniformity betokens a ready-made purchase of the potters. Mr. Dodwell adds, that laminæ of lead, containing imprecations against enemies, are found in Etruscan as well as Grecian tombs.

It is observable that most of the tombs of the Romans were built with the *opus reticulatum*, *mattoni*, or plaster in network over rough stones or bricks. Alberti assigns the reason. If, he says, there are rich and gorgeous ornaments consulted in the construction, it is a temptation to destroy them; and to this cause he ascribes the utter disappearance (the inscriptions excepted) of the monuments of Caius Cæsar and Claudius. But there were existent, nevertheless, very old monuments, because being built with reticulated work or stone, useless for any other purpose, no one violated them.§

Mr. Dodwell adds, that Greek sepulchres are all of the hypogæan kind; and Le Roy||, that the round towers of the Romans were unknown in Greece. As works of architecture, the sepulchral monuments of the latter people were of more importance than their domestic

\* *Archæologia*, xxiii. 269.

† *Plin.* xxxv. 12. *Montfaucon*, v. b. ii. part i. c. 6.

‡ *Id.* v. part i. b. iii. c. 4.

§ *F.* cxxi. a.

|| *P.* 30.

structures. There is more architectural display in the street of the tombs at Pompeii than in any street of the city itself. The mausoleum of Adrian was exceedingly splendid; and various others were magnificent; even the sarcophagus from the monument of Cecilia Metella is simple and elegant in the extreme, and exhibits more good taste than almost any that remain of the same kind.\*

The smaller monuments of the Greeks and Romans were sold ready-made, and these were adorned with foliage and figures allusive to a future state, the funeral ceremonies, or the sex and pursuits of the defunct. Instances, however, of an utter misapplication to such a purpose are numerous in Boissard's collection, and this circumstance shows that they were hack patterns, and bought of lapidaries. The foliage is presumed to have been formed from the plants devoted to the rites of sepulture†; but the distorted figures of animals and monsters is a Roman adoption, not to be seen in Greek remains,—only vegetable forms occur in their ornaments. Millin says that the sarcophagi of the pagans are often surmounted by a kind of frieze, of which the subjects have sometimes a connection with the principal bas-relief, and sometimes none at all.‡ Centaurs, griffins, and sphinxes often occur: Herder thinks that they were but emblems of destruction; D'Hancarville derives them from the Hyperboreans or Scythians, in whose tombs have been found small figures of animals, which had been shut up there. It appears rather that these animals, which make part of the suite of Bacchus, are, upon the ancient tombs, emblematic of the initiation, and by consequence of the celestial happiness, of the defunct. The sphynx is the symbol of prudence; and the griffins, which watch with so much care over the gold intrusted to them, will show the same vigilance to protect a treasure still more pre-

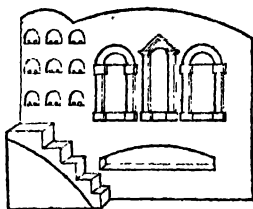
\* Mr. Hoskins, *Biogr. Brit.*

† Stuart's *Athens*, vol. iv. p. 9. new edit.

‡ *Midi de la France*, ii. 269.

cious, the urn upon which they put the paw, to indicate that they well know how to defend it against all the roguish persons who wish to lay their profane hands upon it. A bark was the symbol of the harbour of happiness, to which the deceased had arrived, for which reason we often see upon tombs dolphins, tritons, and nereids. A cornucopia indicates prosperity. In short, the re-union of these monsters might have for object to frighten the violaters of tombs, and hinder a kind of sacrilege, which was most hideous and detestable in the eyes of antiquity. The tombs of the first ages of Christianity are very curious, because they show the history of the art in its decline. The customs of the lower empire, the usages of the Pagans, and mythological symbols, were made to represent the mysteries of their religion, and the new allegories that they imagined. Thus the vine represented Christ, vases they took from 1 Thess. iv. 4. 2 Cor. iv. 7., and the doves they made symbolic of a soft and pure soul.\* All this is hypothetical; and it is to be observed that none of this kind of tombs, so numerous in Boissard, appear to have been discovered at Pompeii, and therefore may have been known only in the decline of the empire.

The Street of the Tombs at Pompeii has a fine effect. Burials by the roadside were usual, because the families of the place had certain portions there allotted to them,



by purchase, for the object intended. At Pompeii they are elegant structures. The Hypogæa, of which none are there apparent, seem to have suggested the fashion and construction of the mausolea above ground. The Greek *Hypogæa* were often divided into apart-

ments like houses, with the exception that the walls were lined with *columbaria*, (pigeon-holes, or niches

\* *Mémoires de la France*, ii. 151—165.

for holding the urns which contained the ashes of the dead under cremation), or even recesses for a whole corpse. Fabretti has given the following curious specimen of one adapted to both purposes.

A monument at Corinth, and another at Pompeii, (the tomb of Navoleia Tyche)\* show that these apartments were intended for relatives who visited, and even at anniversaries held feasts there. The story of the Ephesian matron represents widows as resident there for some time after a husband's decease; and inscriptions show that tears were expected to be shed over the ashes of the dead, and to be mixed with aromatic spirits. These *lachrymatories* require explanation. The Psalmist mentions tears in bottles (*lachrymatories*), and for the purpose of receiving these tears (*not* in a lachrymatory) a hole was sometimes left in the cover of the urn. In Gruter, Rusticella Cytheris, after presuming that her husband would visit her tomb, and have her name inscribed, concludes with,

“ Et quicumque tuis umor (*sic*) labetur ocellis  
Protinus inde meos defluat in cineres.”†

and another epitaph says that Fusca, a mourning mother, had mingled her tears with *opobalsamum*.‡ These tears were shed over the ashes, for notwithstanding the Psalmist, Schoefflin, Paciandi, and others, contend that the phials called lachrymatories did not contain tears, only the liquid perfumes used for moistening the funeral pile or ashes of the deceased.

The *urns* (as they are called by Montfaucon) in the most ancient monuments are shaped like boxes, with pyramidal covers; and, properly speaking, were such, seemingly of stone. In general the *urns* (*ollæ*) were round-bellied, of the form still to be seen at the British Museum, placed in mimic columbaria: some had

\* Engraved Pompeiana, i. pl. 5, 6.

† “ And whatever moisture falls from your eyes, let it fall from thence upon my ashes.”

‡ Montfaucon has spoiled this inscription (Guther. ii. 22.), by omitting *cum aër relecta*.

points to fix them in the niches ; others were flat-bottomed, to stand on the ground ; and smaller urns in the family mausoleum were granted to domestics. Among the ashes enclosed in urns have been found crystal balls. One similar was discovered in the sepulchre of king Childeric, father of Clovis. It was an amulet, supposed to work miracles, &c. and well known in Druidical archæology, as the *Leice*, *Mænal*, or *Mædenhall Leice*. The *ourendaria* were larger urns. Some urns (or, according to the plates, rather square blocks) are divided into compartments for reception of the ashes of distinct persons.\* They seem to have appertained to inferior monuments, and to have been intended, perhaps, for the protection of urns put within them. Cremation became rare about the time of the Antonines, and therefore all these cinerary urns may be deemed older than that period. As cremation, to prevent mutilation of the corpse by enemies, was not general, however, until after the time of Sylla, the Etruscans, who were famous potters, used to make fictile coffins†, the *fictilia sarcophaga* of Gruter ; and one made of clay has been discovered at York.‡ There were others also of stone, parallelograms, of which one is engraved by Boissard.§ Nero was buried in one of porphyry ; and these sarcophagi, called also *solia*, were appropriated to persons of high rank.|| In some mausolea there were recesses, as in the preceding cut, for the reception of a whole body. These were called *loculi*, which upon use were closed with marble, or terra-cotta plastered, to prevent the escape of fetid odours. The Roman vault at York was 8ft. long, 6 ft. high, and 5 ft. broad. The top was covered with bricks 1 ft. square, 2½ ft. thick. The walls were of stone. In the vault was a sarcophagus, cut out of a single grid stone, and covered with another of blue flag, containing a skeleton. The head rested upon a step. At the north end of the vault was

\* Fabretti, Montfauc. &c.

† Archæolog. v. 225.

‡ Suet. Nero L. et not. Delph.

† Plin. xxxv. 12.

‡ Pars v. pl. 115.

an aperture too small to have admitted the sarcophagus. It was carelessly closed with large stones. At each side of the skull was found a glass lachrymatory. Foggini observed upon the covering of a sarcophagus, at the Capitol, three cavities, one entirely hollow, supposed for the introduction of solid bodies, such as cakes, the other two for libations. But these coffins seem to have been different from those cinerary urns, the Greek *οστουθηκαι* and *οστοδοχεια*, the Latin *ossuaria*, which are short and broad, and always have covers. There were urns for the common people, and larger\*; because, the bodies being imperfectly burnt, pieces of bone remained, or they contained the ashes of a whole family. Persons who had no mausolea kept such urns in their houses, or placed them upon *cippi*, which contained an inscription. Urns of metal belonged to persons of distinction. The *natilon*, or Charon's fare, came from the Egyptians (for it occurs in mummies); as did the custom of burying lamps, very rarely found in Grecian or Hetrurian monuments. It was a compliment paid to the images of idols, mentioned by the prophet Baruch and by Herodotus, but it is presumed to be of later introduction into Roman sepulchres. A Salernitan inscription says, "May a golden earth cover his ashes, who has put a burning lamp into this tomb.\*" The Christians adopted the practice; some lamps have even the monogram of Christ. In the interior of the tomb of Nævoicia Tyche at Pompeii, lamps were stored in a corner, ready to be put into new urns as they were wanted.† This tomb is remarkable, because it had an enclosure of painted and panelled walls, in the middle of which is a stone triclinium, or dinner-bed‡, surrounding a table, for the celebration of the anniversaries by surviving friends. An altar accompanies it, for propitiation of the Dii inferi.

The arrangements for the burial and procession were as follows:—

\* Ency. of Antiq. Montfauc. Popery the Religion of Heathenism, pp. 14, 15.

† Pompeiana, p. 117.

‡ Pompeiana, pl. iv.

1. The last kiss to receive the expiring soul, and closing the eyes, which were opened again upon the funeral pile, that the defunct might behold the heavens.

2. Taking the rings off; put on again when the corpse was carried in state.

3. The *Conclamatio*, or calling the name aloud, to find whether he was really dead; some add the sound of trumpets also.

4. Application to the undertakers (*Libitinarii*) to provide the necessaries and undertake the management.

5. Washing the body in warm water, and embalming it with perfumes, by the *Pollinctores*, servants of the *Libitinarii*.

6. The corpse clothed in a toga at the vestibule of the house, a branch of cypress for the rich, of fir for the poor, being placed over the door; a man near, to prevent theft; in a person of the first rank, boys to keep off flies.

7. At the end of the seventh day proclamation of the *Exequiæ* by a crier.

8. Body put upon a litter, called *Hexaphorus* if only six bearers, *Octophorus* if eight. Relatives or sons of the defunct the usual bearers; in common people, hired persons called *Vespillones*. The corpse had the head crowned with flowers, and the face uncovered, unless it was disfigured by disease.

9. The procession being arranged, the march commenced: 1st, By melancholy music, trumpets for male adults, and flutes for minors, or, as some accounts, also females: 2dly, By persons who carried torches: 3dly, An arch-mimic, dressed in the habit and wearing a mask of the features of the deceased, who imitated the manners and gestures of the deceased, even jested upon their failings. 4thly, All the tokens of dignity which the defunct possessed, as presents of honour, crowns, spoils taken from enemies, &c. 5thly, Then the body on a litter covered with purple. 6thly, His bust in wax, with those of his ancestors and relatives, mounted upon staves, or placed in chariots; a ceremony not

granted to *novi homines*, or persons attainted of crime. 7thly, The freedmen carrying the *pileus*, or cap of liberty. 8thly, The children, relatives, and friends of the deceased, *atrati*, attired in black, the sons with a veil over the head, the daughters in white with dishevelled hair, and barefooted. 9thly, The *preficæ*, or women whose profession it was to make lamentations, and sing praises of the defunct.

10. If the deceased was an illustrious person, the body was conveyed to the forum, where, before the rostrum, a son or near relative made 'an eulogium, called the *Laudatio pro rostris*.

11. From thence they proceeded to the place where the body was to be burnt (*Ustrinum*) or buried. The pile was previously prepared with combustible woods, upon which was laid the corpse. It was watered with perfumed liquors; a finger cut off to be buried; the face turned to the sky, and the *naulon*, or Charon's fare, commonly a silver obolus, placed in the mouth.

12. All the pile was surrounded with cypress. The nearest relation turning his back, while the pile was being 'inflamed, threw upon it the arms and other effects of the defunct. A sacrifice was also made of oxen, bulls, and sheep, which were thrown upon the pile. As a substitute for the barbarism of immolating prisoners to appease the manes of the deceased, there were combats of gladiators. Sometimes there were added chariot races, theatrical performances, and feasts to the assistants and people.

13. When the body was consumed (and it was sometimes draped in cloth of amiantus, that the ashes might not be intermixed with those of the pile), the ashes and bones were washed with milk and wine; and deposited in an urn, of higher or less value according to the station of the deceased, those of *terra-cotta* being the most common.

14. The sacrificer, who had assisted at the solemnity, then sprinkled the assistants, to purify them, with holy water, from a sprinkler of olive branch.

15. A mourner dismissed them with, "Go, it is permitted, (*I, licet*).<sup>\*</sup>" Then the relatives and friends of the defunct, calling him by his name, said, in a loud voice, "*Farewell, farewell, we shall follow in the order which nature has appointed.*" The urn was then carried to the sepulchre, before which was a small altar, where were burnt incense and perfumes; a ceremony renewed from time to time, as was that of strewing flowers upon the tomb.

16. Lastly, a dinner was given to the relatives and mourners<sup>†</sup>; sometimes a distribution of the viands to the people. On the ninth day following was another dinner, the *novendiale*, at which festival the mourners relinquished their black dresses for white.

*Note.* The fasces and arms were borne reversed, at the funerals of magistrates and warriors; a Greek fashion.\*

*Public edifices.* — The chief of these are

TEMPLES. The Romans, says Le Roy<sup>†</sup>, while heathens, never deviated from the square and round temples of the Greeks: they only altered the general proportions, and made them shorter. Mr. Wilkins adds numerous architectural changes in the work.

The disposition of the interior, in a Roman temple, may be easily understood by the following analogies to that of our cathedrals.

It stood within a *hieron*, or *area*, answerable to our churchyard; the *pronaos* to our *ante-chapel* (or porticus of our own churches at the west end, formerly usual); the *cella* to the choir; the *naos* to the presbytery, where the communion-table stands; the *opisthodomus* (adytum or sanctuary) to the Lady Chapel; the *peristyles* around to the aisles. The statue of the god generally occupied the centre; the altar was before it, and the walls were hung with *ex-voto's*, paintings, arms taken from enemies, &c. &c.

The *hieron*, or *area*, was sometimes planted with

\* Ency. Méthod. art. *Funérailles des Romains*. Boissard, et al.

† Vol. xiii. part. ii. 8.

fruit trees, for the benefit of the priests, who lived in college fashion around the temple, as did the Egyptian priests, and farmed lands, which formed the endowment. The porticoes, or peristyles, and pronaos were columned, for the shelter of the people, who prayed there, because admission into the *cella* was prohibited to all but the priests and some privileged persons. In these porticoes goods were sold and business transacted (as among us); and, with the Greeks, were promenades, and called *περιδρομοι*. In these porticoes rhetoricians held their schools; orators harangued from the elevated steps; and children were instructed: whence came our custom of holding school in the parois or church porch. Between the columns of the Greek temples at Pompeii, standing in the midst of an area, were iron bars, to confine the crowd to the porticoes. When the time of sacrifice arrived, the doors were thrown open, that the people assembled under the exterior portico might see the altar and the victim. In the sanctuary was the oracle, if any; or it was the pedestal of the statue of the god, having beneath it a subterraneous passage for a priest to utter the response, or a concealed room, or niche with an aperture.

At the entrance of temples there was a pond or basin, used by the priest for ablution before sacrificing to the *Dii superi*; mere sprinkling being sufficient for the infernal deities. Marbles differ from authors; but the following customs were commonly received. The priest, crowned with branches of the tree dedicated to the god, — which branches are tied with bandages, — bears the *simpulum*, a vessel for holding wine. He is attended by children, called *camilli*, who carry the vessels, baskets, &c.; *musicians* belonging to the temple, who played on flutes during the sacrifice; the *popæ*, or *victimarii*, naked to the girdle, assistants or partakers, bearing vessels of various kinds; and the *sacrificers*, who, among the Romans, — not among the Greeks, — had the head veiled, except the god was Saturn. The victim was adorned with bandeaux or garlands, sometimes with

fillets and trappings. In a votive sacrifice, however, the priests and supplicants were unveiled and barefooted, and the robes unloosed. There was also a tripod, which sustained the *apoda*, for preparing the parts of the victim intended for the meal. All these persons and things appear upon marbles; and, all being ready, either the priest, after prayers to Janus and other gods, or a crier, called aloud "*Hor age*" to the people, who thereupon observed a profound silence. The priest then walked round the altar several times, holding his hand upon his mouth; and next poured the wine upon the altar; concluding with plucking some of the hair from the victim, and casting it into the fire. Then was the time for the victimarius to take the knife called *secespita*, for cutting the throat of the victim; or *malleus* or axe, to knock him down, as also mentioned by Homer, and still practised by butchers. Before he struck the blow, he addressed the priest for the signal, by the words *Ago-ne?* While he was striking the victim, speech was prohibited; but, afterwards, it was allowed, until what was to be burnt upon the altar was delivered to the priest. During the roasting, silence was again enforced; and the intervals alluded to gave birth to the phrase *Inter cæsa et porrecta*. To return to the proceedings after the throat was cut: the blood was collected and the skin taken off; then the haruspex, or flamen, examined the entrails for prognostics: and presages were also formed from the burning of the incense and motion and windings of the smoke. Favourable omens were denoted by the word "*Litare*." After the exploration of the entrails, they cut off the primitiæ both of them and of the members, and offered them to the sacrificer, who threw them upon the fire of the altar, together with incense and spices. The whole ended with a feast of the remaining parts of the sacrifice (whence "St. Paul's meat offered to idols"), songs in honour of the god to whom the sacrifice was made, and dances. The meal was eaten standing; and small

round loaves (whence our hot cross-buns originally) were added.\*

It was customary for worshippers, when in temples, to conceal the hands, from reverence. They have also the head covered, during prayer, when standing: when kneeling, the head and face are covered, with the right hand upon the mouth, the fore-finger being inclined to the thumb,—a gesture also used in passing a temple. The Romans of regular habits came to the temples, which were open to every person, and often lighted before day, temples having no windows.† Those who could not go to the temple, supplied that duty by their *ædícula*, or oratories. A priest pronounced from a book the prayers, which were reiterated by the people, turned towards the east, with their heads veiled, to keep their attention unperplexed by any ill omen. They were to invoke the god by name, and, to avoid mistake, were to add, “*Sive tu deus, sive tu dea es;*” *i. e.*, *Whether you are a god or a goddess.* They touched the altar while they prayed, and advanced the hand from the lips towards the image of the gods: they also embraced the knees of it, because they regarded the knees as the seat of mercy. The young of both sexes, also, sung hymns, in the morning, to the celestial gods, and, in the evening, to the infernal; both accompanied with music.† The influence of the priests over the people is evident throughout the whole Roman history; and Juvenal‡ mentions the Galli, or priests of Cybele, in particular, as menacing the women with diseases and misfortunes if they did not make presents to them: *i. e.*, give them eggs and certain of their old clothes.

**THEATRES.**—The most perfect specimens are those of Herculaneum and Pompeii. They resembled the Greek in form; but, not being excavated, like those, out of rock, they have external walls, decorated in the Roman vicious taste, with columns and intervening

\* Montfaucon, et alii.

† D'Arnay, *Vie privée des Romains*, c. i.

‡ L. ii. sect. vi. ver. 519, 520.

arches. The following view of the great theatre at Pompeii will give a satisfactory representation of its construction.



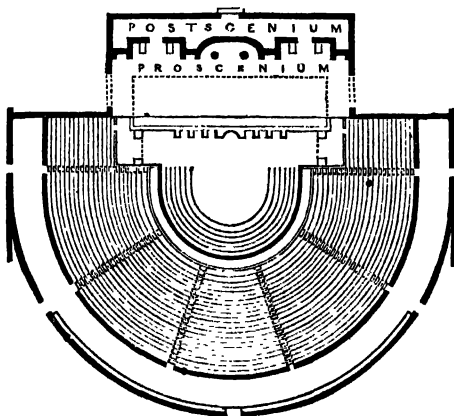
VIEW OF THE GREAT THEATRE AT POMPEII.

The great difference between the Greek and Roman theatres was in the disposition of the orchestra, our pit. The Greeks devoted it to the chorus and dancers; but the Romans to the patricians: and this distinction, which took place in the time of Scipio Africanus, illustrates Juvenal's phrase, "between the orchestra and people." The following plan of the stage parts of the Pompeian theatre will explain it.

The plan represents (to begin from below), first, a corridor, or gallery, by which the people went to their seats, or *cunei* (wedges), because the compartments were divided into that form. This portion answers to our boxes.

The orchestra is our pit: part of it is occupied by a range of semicircular seats. Here sat the patricians and persons of distinction. In the vacant area, those of the highest rank were distinguished by curule chairs. It was separated from the stage by a low wall, or balustrade, called podium, at Herculaneum adorned with statues. Below this is a row of recesses, nearly in the situation of the stage-lights at our theatres. These are

justifiably presumed to have been appropriated to the musicians.



A platform elevated beyond this, formed the stage, called *proscenium*, or *pulpitum*.

Instead of the drop scene is a stone house, resembling, at Herculaneum, the front of a handsome country seat, with three entrances, the central being the largest. The back part consists of an open area, to which adjoins a large portico, whither (says Vitruvius) the audience could retire when it rained. Alberti says, that the distinction between a great and small theatre consisted in the latter having no portico; and he appears to be supported by the adjacent little theatre at Pompeii. These are thought to have been intended for rehearsals, or as *odea* for musical pieces. To keep off the sun, masts were fixed in stones, with holes, projecting from the exterior circuit of the theatre; and a cloth, called *velarium*, was stretched upon transverse ropes, instead of beams. Pliny says, that Lentulus Spintrio was the inventor of awnings; and Maffei adds, that this *velarium*

was made of woollen cloth variously coloured, and could be drawn backwards or forwards at pleasure.\*

Hypothetical accounts, written before the discoveries of Herculaneum and Pompeii, have much embarrassed the subject; but the model of the former, and the representation here given of the latter, render the construction quite intelligible.

Concerning the house, which has been called *κλισιον* or *clisium* (an acceptance not generally received), Vitruvius† says, that the representation of private buildings with windows was part of the comic scene, and Winckelmann‡ has proved it by an engraving. Pollux§ reckons among the parts of a theatre, *a house with two stories*, and says, that from it the old women and pandars used to look down and peep about them. From those high prospects some use or another may have been made in the tragic scene too, and when there was occasion, they may have made the spectators see through the two gates or apertures||, which, Vitruvius says, *were on the right and left*, and served for those personages introduced in the drama, as representing foreigners, to come out on the stage, since the middle part was filled up with the royal gates, and the train belonging to the court. We likewise read in Pollux, that, in the tragedies, the house with the two stories represented sometimes two parlours or high places like towers, from whence they could see at a distance; and we read that the gate on the right hand (by which name I understand one of the apertures in the front) was the place of those who acted the second part. It was common, in both the Latin and Greek theatres, to represent the scene from nothing else but one single partition wall, or front of a building with three doors, which Perrault shows to be filled, and almost shut up, by the painted machines, and other things, which turned on pivots. Thus

\* Gordon on Amphitheatres, 349—353.

† L. 5. c. 8.

‡ Hamilton Vases, vol. iv. pl. 160. Monum. ined. n. 190. pl. 190. p. 224.

§ Onomast. v. *κλισιον*.

|| *Dextra ac sinistra hospitalia*. Vitruv. l. 5. c. 7.

Maffei.\* Montfaucon, however, under the name of *Scena*, makes the substitute of this house, in some theatres, a splendid structure, consisting of columns, marble, and glass, enriched with gold, silver, paintings, and other decorations. The middle doorway was that of the principal actor, and those on the right and left appertained to the second and other characters. That, too, in the centre was much wider than the others. From tracks of wheel-ruts, found in the theatre of Tauromenium (now Taormino), where the site of the *clisium* was cut in the rock, such traces show that real chariots and horses passed through this entry. But this front would not harmonise with all the kinds and circumstances of plays. There were, accordingly, scenes formed of tapestry (not painted), by which the house was concealed. These scenes were triple, and fastened upon prisms of framework, turning upon pivots. Each face had, says Vitruvius, a distinct picture: one for tragedy, consisting of stately edifices, with pillars, statues, and other things suitable to palaces; another for comedy, with balconies and windows, in imitation of common buildings; a third for farce, exhibiting groves, caves, mountains, and other rural objects. It is difficult to give a clear idea of the action or situation of the revolving prisms, but they are said to have been placed at each end of the stage. The theatre having no roof, the curtain (*aulæum*) was not let down, but drawn up, as is exhibited in the following lines, by which it also appears that figures formed the pattern:—

“ Sic ubi tolluntur festis aulæa theatris  
Surgere signa solent; primumque ostendere vultum;  
Cætera paulatim; plaridoque educta tenore  
Tota patent; imoque pedes in margine ponunt.”†  
Ovid. l.iii. *Met. de Cadmo.*

Connected with the curtain were the *siparia*, which

\* Gordon on Amphitheatres, 393, 394.

† “ Thus, when the curtains are raised in festive theatres, the statues are accustomed to rise, and first show the face, the rest by degrees; and, being drawn up in a gentle manner, the whole appear, and put their feet upon the low margin.”

folded up. By one passage in Apuleius\*, the *aulæum* should seem to be a term applied to the particular curtain used for tragedy, and the *siparium* a distinct one; and by another, that the *siparin* and curtain were used together.† There were trap-doors for the ascent of ghosts, furies, and infernal deities; γερανοί, or cranes, by which performers were elevated in the air, there being no wheelwork aloft, as in our theatres; *ceraunoscopia*, or moveable towers, whence Jupiter darted lightning, supposed the Greek fire; *bronteia*, thunder machines, brazen vases concealed under the stage, in which stones were rolled; and other engines.

The actors and characters were distinguished by particular costumes, masks, and other tokens of distinction. Of these the most familiar are the sock for comedy (εμβάτης), and the *cothurnus*, or buskin, for tragedy. This was a thick-soled boot, to elevate the actor or actress, whose arms were lengthened by gloves, and whose bodies were padded to augment the size. The tunic of tragic actors descended to the heels, and was called *συρμα*, ξυστις, *palla*. They generally carried long staves or an erect sceptre; a long straight one denoted kings. Priam was always shaven; Ulysses dressed in a cloak, that being the Ithacan habit; Achilles and Neoptolemus wore diadems; Tiresias had a peculiar dress like a net; Atreus, Agamemnon, and similar characters, a particular upper garment; Telephus, Philoctetes, and persons in distress, were clothed in rags. Parasites and he-bawds carried a straight truncheon, called *αρεσκο*; rural deities, shepherds and peasants, the crook; heralds and ambassadors, the caduceus; heroes, a club, &c. Old men leaned upon a long and crooked staff, called *σολιον*. But the most curious distinction was the *mask*, an invention contrived to give an appropriate physiognomy to the character, and formed with a large mouth, for the purpose, it is supposed, of containing a bronze instrument,

\* "Aulæum tragicum dimoveto, et siparium scenicum complicato."—Met. l. p. 9. ed. Bip.

† "Aulæo subducto et complicatis sipariis."

like a speaking trumpet, to aid the voice, for masks were invented by Æschylus, and were ultimately made of bronze, or lined with it. These masks are all in distortion, the tragic exhibiting horror, the comic and satiric either natural (as were those of the dancers), or grotesque. By frightful masks they also personated foreign barbarians. Some masks were so contrived, that the profile on one side exhibited chagrin, and the other serenity, or the feeling required; and one or the other side was exhibited, according to the passage recited. It appears from the marble masks still extant, that the white of the eye was imitated, leaving only the aperture of the iris to see through; but, as Thamyris was exhibited with one eye blue and the other black, that must have been also imitated.

Pericles was the author of paying for places, as was also done\* at Rome. The Athenian theatres were indeed let; and the palpable expense of the establishments in dresses and retinue rendered it indispensable. Tickets made of bone have been discovered at Pompeii\*, and there was a substitute for play-bills, thus described by Milkin†: — “Instead of writing the names of the characters which were to figure in the piece, they suspended, at the entry of the theatres (*des cadres*), picture frames placed in a cartouche having the form of a small temple marked with columns, a pediment, and other ornaments. The fine manuscripts of the Vatican and Parisian Terence offer further examples.” Not only these manuscripts, but the Hamilton vases, and paintings at Pompeii, furnish also comic and tragic scenes.

AMPHITHEATRES. — “The elliptical forms of them,” says Mr. Hosking, “can never be graceful, and the architecture is invariably the worst that the time produced. The colosseum itself bears in relief the gross solecism of columns in stories, which, moreover, have recessed stylobates, and immense intercolumniations,

\* Pompeiana.

† Description d'une Mosaïque antique, représentant des Scènes de Tragédies, p. 9. Paris, 1819, folio.

with large arches between them, which again reduce the effect of the column still more, making the continuity of the entablatures themselves a fault by their consequent infirmity. Internally these blemishes disappear; columns and arches piled upon columns and arches, give way to the long continuous lines which graduated from the arena to the gallery, and must have produced as grand an effect as almost any object in architecture. The form of amphitheatres, an oval, of which several of the Castrensian kind, made of turf, particularly that of Dorchester, exist in this country, is well known. Even the purpose of them is rudely recognised by the people, under the colloquial appellation of bull-rings. They were unknown in Greece or Asia, and appear to have grown out of savage manners. It is stated, that anthropophagy, in such nations, was succeeded by human sacrifices.\* From the same apparent source seems to have been derived the ancient opinion that the souls of the deceased delighted in human blood: whence the slaughter of slaves and others at the funeral pile. But, says Servius, this custom appearing, in after-ages, too inhuman, Cassander, at the funeral of Arideus, king of Macedon, and his wife, caused four soldiers to fight with each other; and this is thought to have been the first instance; but nothing of the kind was practised in Greece for public shows; although it appears upon the sepulchral monuments of the Etruscans, from whom it was derived. The intention was, says Pliny, to inspire fortitude, and make men despise wounds and death. The first exhibition was in the year 490 A.C., when the two brothers Bruti caused three couples of gladiators to fight publicly, in memory of their deceased father. The first places for these combats were the *fora*, or market-places; but, in the time of Cæsar, amphitheatres consisted of two wooden theatres, turning on pivots; and the earliest instance of one made of stone was that of Pompey. The combats of wild beasts did not ensue till the year 568 A.C.; and all the amphi-

\* Solorzano, 219.

theatrical games were left off in the sixth century after Christ.\*

The combatants consisted of gladiators, or of wild beasts with one another, or with condemned criminals.

The profession of a gladiator became a trade, from the pleasure of the exhibition to the people, and classes of them were formed, as follows:—

1. *Secutores*, who carried a club, with lead at the end, and a sword. Upon the Pompeian bas-relief † this club does not appear.

2. *Thraces*, or Thracians, had a cutlass or scimitar, (a national weapon), and a round shield.

3. *Mirmillones*, a shield, falchion, and fish upon the helmet.

4. *Retiarii* carried a trident in one hand, and a net in the other. This singular mode of combat was taken from Pittacus, a general of the Mitylenes, who fought with the Athenian commander, like a fisherman, with a net which he threw over his adversary, and afterwards wounded him with a trident and knife. Lipsius says, that they were mostly paired with the *Secutores*.

5. *Hoplomachi*, armed at all points, who were opposed to the

6. *Provocatores*, armed in the same way.

7. *Dimachaeri*, who fought with a dagger in each hand.

8. *Essedarii*, who fought from chariots.

9. *Andabatae*, who fought with a bandage over their eyes, or a helmet which covered the face. Two such combatants appear upon the Pompeian bas-relief. Their faces are wholly covered.

10. *Meridiani* (from entrance into the arena at mid-day) fought with a kind of sword.

11. *Bestiarii*, those who fought with wild beasts.

The Pompeian bas-relief shows one opposing a veil to a beast, like the Spanish matador in the bull fights.

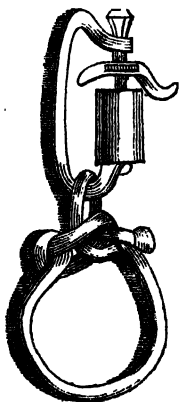
\* Gordon on Amphitheatres (a translation of Maffei), pp. 4—71.

† This bas-relief represents both the hunting and gladiatorial fights. A series of woodcuts from it may be seen, Pompeii, vol. i. p. 392. et seq.

This veil was not first employed in the reign of Claudius: for it appears in the figures of Hetruscan gladiators, engraved by Montfaucon.

If a gladiator exhibited cowardice the people condemned him to death, by stretching out the hand, pointed towards him, with the thumb elevated; if he was spared, the thumb was folded under the fingers. The unfortunate gladiator, if condemned, presented his throat to his adversary, and one of them in such a gesture is represented on the Pompeian bas-relief. After three years they were exempted from combat, unless optionally: and, if they had been many times conquerors, received from the prætor a knotty staff, called *rudis* (whence *rudarii*, their appellation); and sometimes a garland of flowers, entwined with ribands, *lemnisci*, the ends hanging over their shoulders. They were called *Lemniscati*.

The club gladiators, or earliest *secutores*, appear as Hetruscan, in Montfaucon, as do the *lemniscati*; and a figure with the thumb erect.



Of the combats with wild beasts there are representations\* in the Pompeian bas-relief, and in Montfaucon. The most savage of the beasts had a kind of fetter on their legs, made in this fashion, according to one found in the amphitheatre of Autun. In the Pompeian bas-relief a panther appears hampered by a cord to a bull; and the intention is supposed to be protection to a novice practising.

Not only did beasts combat, but were taught all manner of tricks, and were perfectly tamed, so that even tigers endured the whip.

Maffei says, that amphitheatres had an *impluvium*, or basin in the middle, and conduits and channels to receive urine and

rain water. He will not admit that wild beasts entered the *arena*, through the *caveæ* or arches, but that they were introduced in their cages or dens.\* The *impluvium* and *caveæ* might be useful for the introduction and discharge of water, when there was a *nau-machia* or sham sea-fight; but neither appear at Pompeii.

CIRCUS.—Horse races are called inventions of the Tyrians, and this, and nearly all the games, are said also to have been imported from Asia to Italy.† It is certain that the Roman circus was copied from the Greek *stadia* or *hippodromes*, the invention of which is ascribed to Pelops, Oenomaus, or Hercules. Romulus founded them under the name of *consulia*, from the god Consus, and the races were first run in the open country, afterwards in enclosures paled in, and latterly in a grand circus, built by Tarquinius Priscus, and repaired and improved by several emperors. The form of the Greek stadium was retained, viz. that of a staple: one end being rectilinear, and containing the arches from which the chariots started (*carceres*); and the other three towers, which were private property, and used like private boxes. Across the middle, lengthwise, ran a straight line, called *spina*, decorated with columns, altars, models of temples dedicated to deities supposed to patronise the sports, tripods, obelisks, and statues, oval stones and terminating pyramids. The intervening space was the course, around which the heats were run. The whole was surrounded with an arcade for spectators. According to Montfaucon, the lower part without consisted of a row of shops. At Pompeii no remains of such a building have been found; but the hippodrome at Constantinople, the work of Septimius Severus and Constantine, still exists, although in a very dilapidated state; as does that called of Caracalla at Rome. The chariot races were made in shell-formed cars, drawn by two or more horses abreast, and the drivers were distinguished, like our jockeys, by

\* Gordon, 263. 357—360.

† Alberti, f. cxxviii. b.

dresses of various colours. Mr. Burton gives accounts of the several circuses, of which there are remains at Rome, and he says of the Circus Agonalis, that it is now the Piazza Navona. It is a fine open space surrounded by buildings, in which the outline of the circus is observed, and even the round end is not lost. The length is about 750 feet. On some occasions chariot races are still performed here in the ancient fashion. The remains of the Circus of Caracalla are remarkable for containing large earthen vessels, worked within the brickwork, for the purposes of lightening the building, and keeping the walls dry.\*

The *spina* is marked by a line of raised ground, and at each end is an eminence, where the *metæ* stood; and the carceres were in a curved line, to give the chariots an equal chance.†

The number of heats run was twenty-four, or twenty-five, but though the *spina* was not in the middle, to give a fairer chance of preventing the superior advantage of the chariots on the left hand at starting, there was no means of correcting the shorter run of the innermost chariot, in turning round the *metæ*. Dropping a white handkerchief is now a common signal; hanging out one (*mappa*) was that for the start of the horses.

Boxing, wrestling, and racing were warmly patronised, because they were of use in war; the boxing, for giving and warding off blows; the wrestling, for closing with, tripping up, and overturning the foe; and races, for pursuit or flight: boxing, therefore, was first in rank, wrestling next, and racing last.‡ These gymnastics were performed in the circus: the wrestling and racing, naked; the boxing, sometimes with the *cestus*, a kind of glove made of plates of brass, fastened with leather thongs, but the head sometimes guarded. Domitian gave a girls' race, and obliged them also to box. To these were added combats with clubs, having thongs

\* Alberti, xlv. 6.

† Burton, ii. 32. 35.

‡ Plut. Sympos. b. ii. q. 4.

at the end loaded with leaden balls; leaping; and throwing the disc or coit. The termination of a boxing match was a fall, and request of quarter; and, to make a knock-down blow more speedy, they sometimes carried pieces of lead or stone in their fists; closing was not allowed. Maffei gives us a figure of a girl on horse-back, straddling, presumed to have been engaged in one of the public shows. Wild beasts were also exhibited in the circus; and fortune-tellers, to whom the poorer women resorted, frequented it.\*

FORUM.—One has been excavated at Pompeii, and is excellently restored in the Pompeiana. It is easily comprehended from Covent Garden. Extend the piazza round three of the sides, and, where the church stands, place a temple, fronted like the portico of St. Martin's church, and upon each side of it *Januses*, of which hereafter. Alberti adds, that on the roofs of the piazza were ambulatories. Around the forum (within the porticoes) were silversmiths' shops, and places, *mœniana*, for the collectors of the public revenue.† The entrance of the forum at Herculaneum was a portico,• composed of five arcades, ornamented with equestrian statues of marble. Opposite to this entrance is an elevation of three steps, with the statue of Vespasian, between two figures in curule chairs. On the walls are niches, with paintings and statues: temples are also annexed. But there were meaner *Fora*, for selling meat, vegetables, fish, &c., in great cities; where there was only one, particular places were set apart for the sale of horses, clothes, &c. Newsmongers used to lounge in the forum, and the Romans appeared at it well dressed, regardless of what they wore at home.‡ To expel cowards from the forum and temples was one mode of disgracing them.§ Pedlers (female, called *forariæ*) hawked their goods, and there were *thermopolia* (our coffee-houses), sometimes privies; bronze stands, like those before the Exchange at Bristol; *abaci*,

\* Plut. Montfauc. Juven. et al

† Casaub. in Theophrast. 29. 321. 348.

‡ F. cxxvi.

§ Plut. in Solon.

for making payments); counters (*operariæ mensæ*) for exposing goods; a sun-dial, and market bell.

In the middle of the city the Romans placed the *Curia senatoria*, and adjacent to it the *Curia judiciaria*, and a temple, not only for convenience and facilitation of business, but that the senators might proceed from the temple to the house, and that there might be a place of sufficient dignity to receive ambassadors and foreign princes.

There was also a *Prætorium*, the judgment-hall of scripture (our guildhall), in every town of the empire; and there are remains of one at Nismes (*Nemausus*). Here the prætor administered justice. It was a place full of noise and bustle; and, because all places where hearing is indispensable ought not to have an echo, was not arched, but beamed. For the convenience of litigants and witnesses, the *Prætoria* had porticoes, ambulatories, and other conveniences.\*

The *Basilica*, according to Vitruvius, was a large building turned to the east, having at that end a semi-circular recess for the magistrates, a nave, and side aisles, and at the west end a grand entrance. Across the centre was what we should call an organ loft, and along the sides galleries where sat spectators. The walls had recesses like our burial chapels; and in the smaller basilicæ, the aisles were occupied by shops, and they were warmed in the winter.

The trades had peculiar basilicæ for trying causes relating to themselves; thus the *Basilica Semproniana* was surrounded with clothiers, and that of Sicinius with a flesh market.

Connected with the forum was the *Mucellum*, or market of butchers, fishmongers, and venders of other provisions.

The public granaries were also magnificent, and consisted of squares, lined with cells, in the middle a columned portico.

We may add, that at Pompeii we meet with conduits

\* Alberti, f. lxviii.

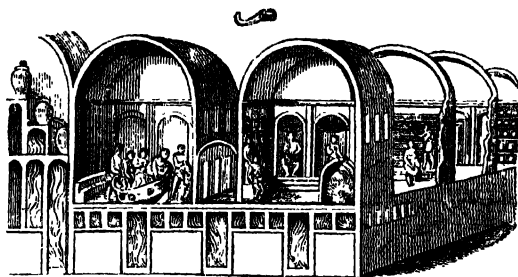
and cisterns so frequent, that there is hardly a street without them. These seem, when annexed to fora, to have been the *nymphæa*; but, at Rome, they were not mere single troughs, to receive water issuing from an arched reservoir.

**THERMÆ, or BATHS.** — Thermæ, properly speaking, mean baths, erected in places where there were hot springs; but latterly baths, on a very large scale, were denoted by them, as well as those which were used by both sexes, although separated from each other. Alberti describes *baths* under the term *thermæ*, as synonymous. He makes the ground plan a quadrangle, containing a large central group of buildings, and a wide walk all round within the outer septum. The rooms in the baths of Titus were prodigiously high, very narrow, and most of them without windows, like those of the baths of Caracalla, although at Pompeii a skylight occurs in the tepidarium. Alberti\* describes the centre as a very large atrium, with which cells were connected; and, from the ruins of those of Caracalla, it seems that the number of rooms in the interior, and the dimensions of them, were most astonishing, particularly the *cella solearis*, 203 feet long by 146† wide; and Alberti gives us an account of all these apartments, but it is not intelligible without a plan. There were, in these baths, 1600 seats, pierced like *chaises-percées*, made of polished marble, for the use of bathers. To those of Dioclesian were annexed a large lake for swimming, porticoes for walking, basilicæ for assemblage of the people before entering or upon leaving the baths, eating-rooms, xysti for gymnastics (i. e. areas surrounded with piazzas, according to Alberti), libraries, shrubberies, &c. &c. Dr. Burton says that one of four round towers, which stood, was so large as to form the present church of St. Bernardo. Alberti makes, of these, temples in which the women purified could propitiate the gods. The following representation, from a painting in the thermæ of Titus, presents a complete

\* F. cxxxiv.

† Burton, l. 305—335.

idea of the processes used in these baths, processes, with very little variation, still retained in Russia.\*



In the painting we see, first, on the right, the *eleothesium* (αλειπτηριον), where the oils and perfumes appear in vases. Next to this is the *frigidarium*, or αψιδουτηριον, where they undressed themselves: from thence they entered the *tepidarium*, a vapour bath; then the sudatory (*concamerata sudatio*), in which we see the *laconicum* (so called from being first used in Laconia), a brazen furnace, to heat the room, and persons sitting upon a series of steps. Suetonius says of Augustus†, that he was often anointed and perspired at the flame, and then had lukewarm water poured over him. So the bathers are still treated in Russia, after which they take their seats on the second or third bench from the bottom, gradually ascending as they are able to bear the heat. Then follows the *balneum*, with its huge basin (*labrum*) supplied by pipes communicating with three large bronze vases, called *milliaria* from their capaciousness, one containing hot, another tepid, and a third cold, water. They returned back inversely to the *frigidarium*, which sometimes contained a cold bath, for those who did not choose the others, or took it after them, as, says Mr. Elliott, it braced the fibres, and acted as a delightful tonic.

**AQUEDUCTS.**—Subterraneous aqueducts were the first

\* Elliott's Lett. from the North, 408

† Cl. xxxii.

in use ; but the facility of bricks for arch-work enabled the Romans to build "*pensile* or *structile* rivers," of which the first mention is in the year 444 U. C. They were also applied to turn mills for grinding corn, and supplying baths ; and, besides obvious uses, Alberti adds, that architects made of them water clocks, by causing them at the front of a vent (*emissarii*) to turn little bronze images representing triumphs or processions, even to grind organs ; and from this practice seems to have come our musical clocks with images.\* The parts of an aqueduct were, the spring (*specus*) ; the *incile*, or trough ; *septa*, or divisions of it, for sometimes two or three different streams ran in different channels ; reservoirs (*castelli*), at intervals, for subsidence of foulness ; vents (*emissaria*) ; beneath them basins (*calices*). A gate was put at the entrance to keep off dirty water, and turn the stream, when any part required repairs ; and a bronze grating was added to intercept sticks and rubbish. The pipes of communication were of lead, bronze, wood, or earthenware : but the first were thought to produce excoriation of the intestines ; the second, epilepsy, cancer, and liver complaints ; and the third to give a bad taste to the water.† No remains are more familiar ; but the aqueduct of Justinian, near Constantinople has a road underneath the trough, formed by perforating the piers.

. BRIDGES. — The first bridges were of wood. These were succeeded by those with stone piers, which either continued in vogue with superstructures of carpentry, or the latter was wholly dismissed. The predilection of the Romans for arch-work gave to them a preponderance over the Greeks in these useful edifices. They employed caissons, or coffer-dams, in laying the foundations of the piers, which they placed upon a solid stratum or piles. They pointed the edge of the piers

\* "Adjungere etiam architecturæ ad usus civiles horarum et temporum summa cum rerum illic motarum festività faceret ; pusilla enim pro flotibusque emissarii simulachra ex ære obambulantia et ludos triumphique pompam representabant. Audiebantur et musica organa vocum concinnitates perque sonoræ et suaves moventi aqua." — *Alberti de Re edif.*

† *Id.*

against the stream, and the breadth of them was a third of the width of the arch, if by that we are to understand aperture.\* The bridge of Ambrusium (*Ambrois*) has the piers only buttressed against the stream, and the road is not level, but follows the undulation of the arches. To the bridge of Alcantara was annexed a *sacellum* or chapel, and the word *pontifex* was derived from sacrifices made upon bridges. Hence came the chapel upon the bridges of London and other places, for the purpose of procuring alms to support them in repair.

CITADELS, TOWN WALLS, and GATES.—The favourite sites of cities were hills, not commanded; or having a plain beneath, convenient for circumvallation; or a plateau at top, because the battle would be equal after the enemy's ascent; but those which, like Cingolum, had projecting and precipitous rocks. Another favourite site was a peninsula between rivers, entered by a ravine formed by valleys of difficult access, and surrounded by pathless mountains, because the enemy could not watch the fauces of these valleys, and succours could be more easily thrown in. Angles in town walls they did not approve, because they thought that they assisted the enemy more than the besieged, and were not of much service against machines; but they deemed them useful in mountainous cities, where roads met. The safest and best situation was that which was guarded by sinuous recesses (*sinuosis qnfractibus*), such as was Jerusalem; because the enemy could neither apply his engines within them, nor oppose them to the fronts without danger.

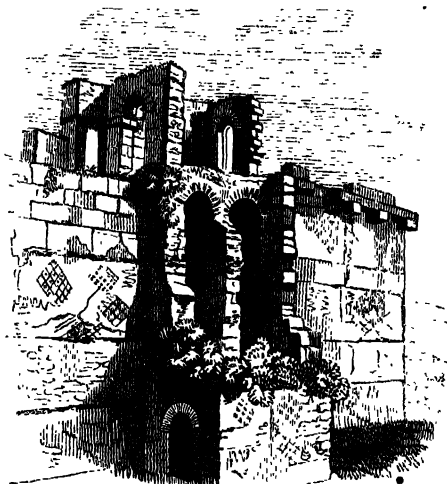
It has been before observed, that the Acropolis, or citadel, was but small; because it was only intended for the occupation of the prince and nobles, and was only to be garrisoned by men not effective for duty in the field. But there were other objects. It is said by Festus, that Servius Tullius ordered the patricians to live in the town, so that if they became insurrectionary he

\* Apertionis, Alberti, cxxv.

might oppress them from the higher ground ; and the citadel was to have, like the keeps of our castles, a wall which commanded every part of the city, and was higher than any other edifices. The towers, also, were to be placed in such positions, as to be useful both against citizens and enemies, and there was to be no access to them, except through the wall itself ; nor to that, unless where permitted. In short, the citadel was to be so constructed, that no persons in the town below could expel the garrison by missiles ; and that the governor should alone possess all the heights, and no one be able to prevent his people from overrunning the whole city.\* Virgil mentions a temple of Minerva, as connected with citadels, and, under pressure, they were more especially refuges for virgins and matrons. Festus adds, that they were dedicated to religion, and called *augural*, because secret rites were there performed by virgins. Of the ancient Cyclopean Acropoles in Italy, it would be supererogatory to speak. The style of the period after the Macedonian invasion is apparent in that country, as in Greece. In some places, as at Pompeii, there appears to have been an omission of Acropolis, and a substitution of town walls instead, but so constructed as to have many characteristics of the former. Augustus founded Nicopolis (now *Palia Prebeza*) in Epirus. The western wall of the Acropolis is flanked externally with strong square towers, occurring at regular intervals of about 100 yards, opposite to which, intermediately, are projections (*μεσοπύργοι*), each supported by three circular arches, with two flights of steps for combatants to ascend the battlements. A gateway, which has grooves for a portcullis, is flanked by round towers. At Pompeii there is a terrace between two walls, with towers at intervals, through which are arched doorways. These towers, like those of Cnidus, do not project, but stand upon the terrace, and are strengthened below the terrace line by an advancing buttress, which, for greater security, as in a

\* Alberti, f. lxi. b.

Norman keep, was entered from the ground by a *side-long doorway*.



By these arches, through the tower, there was, as in our castles, a communication around the whole. The double walls were intended, as just noted, to control the citizens within, as well as the enemy without; and the towers limited possession, in case of occupation by the enemy, to the intermediate space between them. Two towers were constructed guarding the entrance of a sort of passage, between two parallel walls, leading to the gateway. The intention was to expose an attacking party to annoyance from the besieged within the flanking walls. In other places, as at Rome, demi-bastions occur as now, the interior side being open, that the enemy, if he entered the town, might not be protected from the missiles discharged from above.\* The gates were accustomed to be decorated with spoils taken from the enemy; and from this custom came

\* Alberti, *lv. &c.*

**TRIUMPHAL ARCHES.** — These, says Mr. Hosking, are so overdone with ornament, as to be specimens of bad taste. However ancient may be structures of a similar kind, the Composite order first appears on the arch of Titus, and some writers affirm that it is, properly speaking, peculiar to these fabrics. Alberti says\* that they had three passages, the middle one for the triumpher and soldiers; the two others, for the mothers and relatives, who accompanied them rejoicing. A confusion of them, however, seems to occur with

**JANI, or JANUSES.** — These, first built by Numa, were common annexations to forums, and were called *Jani Quadrivii*, because they had four fronts with arches under each, and were erected where four ways met. They were frequented for traffic. Cicero says, that those men, whose stations are in the middle of the Janus, reason much better of the way of getting, disposing, and using of money, than the philosophers ever did.† All arches were not, however, *triumphal* or *Jani*; for at Iola is one erected by Salvia Posthuma, merely as a testimony of affection for her husband.

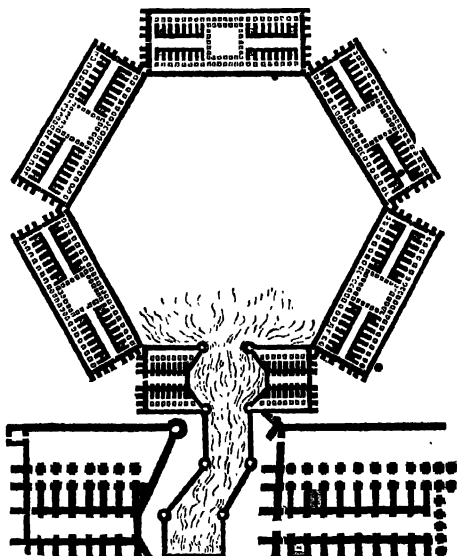
**TRIUMPHAL, or COMMEMORATIVE, COLUMNS,** were first raised by the Assyrians, in honour of the gods, and the fashion was imitated by the Greeks and Romans.

**HARBOURS, PORTS, LIGHT-HOUSES.** — The ancients, discountenancing exposure to particular winds, which might prevent free ingress or egress; shallowness, not only in the fauces, but the bosom and banks; and weedy and marshy shores; preferred those situations for ports, which had adjacent rivers and springs, egresses free from whirlpools and other impediments, safety from ambush of enemies and pirates, and tops of hills which might serve for sea-marks. Within the harbour was to be a bank and a quay (*navale*), for unloading the vessels; a circumambulatory, and portico, and temple, for receiving the mariners and passengers upon landing; columns (mooring posts), *ansæ* (any things to hold by), and iron rings, to all which the ships were moored;

\* F. cxxvi. b.

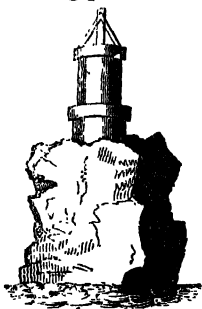
† Montfauc. Burton, i. 224.

frequent arches, for warehousing goods ; towers before the *fauces*, high, and fortified with warlike engines, &c., the height being adapted to descry the arrival of strange sails, point out to sailors, by nocturnal lights, the right entrances, and defend the vessels of allies ; transverse chains, to draw across against enemies ; a military way from the harbour to the middle of the city ; many adjacent villages, whence a force could be collected to resist invasions ; and smaller bays, where damaged ships could be repaired. Above all, it was desirable that the mouths of the harbour should have an uncertain entrance, and these mouths had colossi in more places than one. There was also to be a high mole, acting as a breakwater, sometimes pierced with arches like a



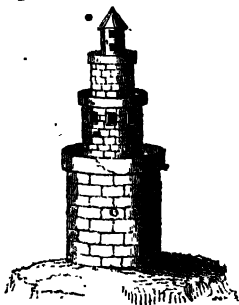
bridge, extending far into the sea ; and an amplitude of *forum* (market-place) before the temple. Thus, Al-

berti.\* Serlio gives the preceding plan of the Port of Ostia, in which he is supported by medallions of Nero and Trajan. In Peiresi's plan of Frejus, the columns, or mooring posts, are very numerous, and in the middle



of the harbour are remains of a tower. Ovid † mentions the dry dock (*siccum navale*); and to the arsenal, called also *navale*, a canal was cut from the harbour; and near this *navale* the galleys were drawn on shore: the magazines for stores, the rope-walks, and other necessary conveniences were adjacent. LIGHT-HOUSES were at first only lights of torches, according to the story

of Hero and Leander, held from the top of a tower, or a lantern suspended from an iron crane. One light-house, upon a gem ‡, resembles, in form, a lantern, as represented in Christie's Greek Vases §; but, as the



Pharos of Alexandria was the model of nearly all the others, and consisted of towers in stories, the most usual form was this, as appears by a medallion of Commodus.

From the time of Hannibal down to that of Pliny, towers and specula, made of earth, were placed inland, upon the summits of hills ||, by way of beacons; and round towers appear upon elevations, near ports, and have been called, perhaps were also, *light-houses*.

**STREETS AND HIGHWAYS.** — These, in the country and cities, were formed upon distinct principles. The

\* F. lx. b. cxxv. clxviii. a.  
‡ Montfaucon.

† Met. l. iii.  
§ Pl. iii. vi.

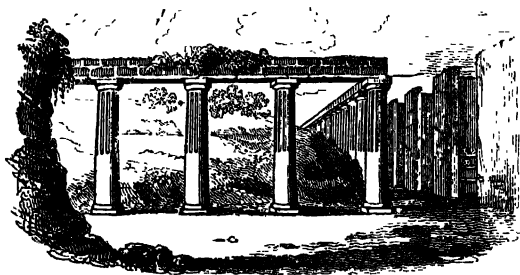
De Naut. et Pentheu.  
|| Alberti, f. xli. M

military ways, without a city, consisted of a causeway (*agger*) made across an open country, to prevent ambush ; and straight, that they might see an advancing enemy, and so summon reinforcements from the rear, or retreat, as circumstances required : but, in towns, a gentle curve was permitted to streets, on account, by this means, of the apparent enlargement of the city, gradual presentations of the fronts of the houses, and various conveniences ; but they were to be narrow, because they would not otherwise be shady, and protected from winds ; and besides, should an enemy enter, he would be more endangered in front, flank, and rear.\* The Roman differed from the Grecian roads, in being paved with polygonal, not squared stones. These stones were laid upon a bed of gravel, which covered another of rough stones, or flint, cemented together. One, of the time of the republic, at “ Rocca del Papa,” the ancient “ Forum Populi,” is paved with large flat stones, with a pavement on each side, about a foot higher. Besides horse-blocks (*ανακαθρα*) and milliaries, or mile-stones (in the form of trunks of columns, inscribed with the names of consuls, emperors, &c., and the number of miles), the Appian Way had all the accompaniments of suburban roads: these accompaniments were, temples, tombs, triumphal arches, villas, groves, gardens, porticoes, and inns. The principal street of Pæstum divided the city into equal parts, and was lined with grand and public buildings, not shops and private houses, as at Pompeii. A large street at Herculaneum, leading to three public buildings, has on each side elevated ground, adorned with porticoes, for foot passengers ; and this was a fashion found in many of our own Roman towns, though the piazzas were made of wood, under projecting upper floors. Porticoes also led from one grand building to another, instead of alleys, at the same excavated city.

Among the minor buildings were BARRACKS (*castra*). These were, at Tivoli and Otricoli, long ranges

\* Alberti, f. lvi.

of rooms, arched or not, without windows or communi-



ications, and opening, as at inns, upon a common gallery, ascended by a wooden staircase.

**PRISONS.** — Alberti mentions three kinds, one for disorderly persons, a second for debtors, and a third for criminals. Of these last there were two kinds; one was *subterranean*, like that presumed to have been the place where Socrates was confined, near the Areopagus, at Athens; and the Ear of Dionysius, at Syracuse. The Romans called them *Ergastula*, where they confined slaves in fetters, who were brought out to work\*; also gladiators, exiles, &c. They had half of the head shorn, and the face marked, and were put to work in cutting stones, &c. A collection of *souterreins*, only lighted by a narrow window, that the prisoners might not escape, at St. Oolombe, in France, Charior ascribes to this use. Alberti adds a very strong wall, apertures, and vault. Others make the *Ergastula* dungeons lighted only by straight ventholes, capable of holding about fifteen persons. But there were prisons above ground, the first of which, at Rome, was built by Ancus Martius. To these prisons uncondemned delinquents could not be consigned.† The jail alluded to under the name of the “Mamertine Prisons” may still be seen on the descent of the Capitol towards the Forum.

\* Beroald. in Columell. v. *Ergastularii*, Hist. Aug. i. 411. ed. Syll.

† Hist. Aug. i. 219. 377. 490.

It was afterwards called Tullian, from additions made by Servius Tullius. These additions were subterranean, and consist of two dungeons, one over the other, without a staircase to either, only trap-doors in the roofs, by which state prisoners (such prisoners, and persons of distinction, being alone incarcerated in the Tullianum) were let down, as was Jugurtha. There were other prisons; but it is uncertain, from Alberti's words, whether he does not mean those of his own era. Not far from these prisons was the *Tabularium*, or Record Office, built in a massy style, and containing in the interior a chamber vaulted with several arches, and a Doric frieze.\*

**RESERVOIRS FOR WATER.**—These, of a subterranean kind, are found at Cannæ: at Forum Julii (Frejus) are remains of another, formed of arcades, the water entering at a corner. The cement is remarkable for having in the second coat a great quantity of charcoal, reduced to powder. The famous reservoir at Miseno is a basin, divided into alleys by rows of square pillars, upon which rested an arched roof; but the chief of all of them was the *Piscina mirabilis* of Baïæ, of which a model is presumed to be that of Taormini (*Taurominium*) in Sicily. It is an edifice oblong square, with an arcade; apertures to convey and let off the water, a staircase to descend by, and a sluice for emptying and cleaning it. It supplied a *Naumachia*.

**SEWERS.**—Alberti † complains of *Senæ* in Etruria, because at that place the filth was discharged out of the windows. He describes sewers as arches under streets, but elevated above rivers, lest they should be choked with alluvial deposits. This was the object of Tarquinius Priscus, in the famous Cloaca Maxima at Rome. It consists of three concentric rows of arches, one above another, the stones of enormous size, and uncemented.‡

**WELLS.**—The contour of them, as appears by many of marble found at Herculaneum, was of one entire

\* Burton.

† F. lix.

‡ Burton, l. 27.

stone, and this discovery is a confirmation of the following words of Alberti \*:—"In the first soils where you resolve to dig a well, put a marble *corona*." Servius says, that coverings of wells were not approved, because evaporation was supposed to be thus obstructed.†

## CHAP. II.

### SCULPTURE, PAINTING, AND DOMESTIC ECONOMY OF THE GRÆCO-ITALIANS AND ROMANS.

PLINY acknowledges ‡ that he does not know the origin of sculpture in Italy; but the style of the Etruscan figures, where the design is in right lines, is Egyptian, and the annexation of wings to deities, Phenician, which Winckelmann makes also of Egyptian origin. With both these nations the Etrusco-Pelasgi had a very intimate commercial intercourse, and among the Phenicians sculpture was a marketable commodity. When Flaxman, therefore, says §, that Etruscan sculpture must be considered as *entirely* Greek, the work of Greek colonists and their disciples, he is not to be understood as referring to the earliest style, for Tarquinius Priscus is affirmed to have been the first who intermixed the "Greek genius" (*Græcum ingenium*) with the arts of Italy ||, because he was sprung from Corinth. This was one of the places most eminent for Doric sculpture, in which the same hardness is observable as in the Etruscan.¶ Besides, the prince of Canino contends\*\* that the civilisation of Etruria was long antecedent to that of Greece. He formed his opinions from painted vases; but, as the progress of the arts is to be judged from that of the mintage, Flaxman †† holds that the

\* F. clvii.

† xxxiv. 7.

‡ Müller's Dorians, ii. 390.

§ Id. clx.

¶ Lectures, 98.

\*\* Archæologia.

|| Hist. Aug. i. 382.

†† 110.

figures upon *them* are not older than a century before Phidias. The Eginetic school of sculpture is anterior to that of the *beau idéal*, and, as Pliny \* observes that the superficies of candelabra were only wrought at Egina, the shafts at Tarentum, there was a very early connection between those Greeks and the Etruscans. Notwithstanding, however, the Hercules of Evander, the double-faced Janus of Numa, and the two thousand statues found at Volsinium when captured, Pliny observes †, that wooden and fictile images were used in the temples, until Asia was conquered. It may be presumed, therefore, that the statues of Horatius Cocles, the Sibyl, Tarquinius Priscus, and the antecedent kings, as mentioned by Pliny ‡, were, the *last* Etruscan, the *others* Græco-Etruscan.

The first Etruscan is palpably of Egyptian character. The design is rectilinear, the attitude is tame (*roide*), the action cramped, the contour without undulation of muscles or flesh, the head oval or oblong, the chin pointed, the eyes flat or drawn obliquely upwards, the arms hanging down close to the sides, the feet parallel, and the plaits of the drapery marked by simple incisions. §

The second Etruscan style is anatomical, like skinned figures; the muscles very strong, and the bones very piercing, the Greeks attaching more expression to the muscles, the Etruscans to the bones. Thus all sorts of figures resemble a Hercules. The feet are placed close, and parallel, or in profile, one in a right line behind the other, and the hands badly designed, and constrained. ||

The later style has the drapery in parallel or transverse folds, but sometimes free; the sleeves are finely plaited; the hair from the top of the head is tied behind, the rest hanging in tresses over the shoulders. ¶

The hair, however, disposed *par étage*, in stories, is, continues Winckelmann, found without exception in all

\* xxxiv. c. 2.

† xxxiv. c. 7.

‡ Id. c. 1.

§ Winckelm. Hist. del Art. i. 182. ed. Amstelod. 8vo.

|| Id. 186—191.

¶ Id. 193.

Etruscan figures, whether of men or animals. In early times it was disposed like scales of fish, or corkscrew curls. Nearly all the deities are winged, and the furies have modii upon the head.

The Greek fashion was to represent the figure in nudity; the Roman, although the work was by Grecian artists, in military or civil costume. The former was conformable to the genius of the people, because it commemorated war, conquest, and universal dominion.\* The Roman compositions owe no inspiration to the muses, and urge no claim to the epic or dramatic. The columns and triumphal arches are the mere paragraphs of military gazettes, vulgar in conception and ferocious in sentiment.† The draped figures both of Greeks and Romans exhibit, however, the most beautiful specimens in ancient art, particularly those in which the garments display the human figure most advantageously, or give dignity to its character, or enrich its particular form by flowing lines, or harmonise in its sentiments and actions. Such were the Greek pallium and Roman toga. They suited grave and dignified characters, philosophers, apostles, and prophets, men presumed to give small attention to worldly objects, men whose thoughts are wholly engrossed by the cultivation of virtue and truth. These robes added imposing grandeur to the venerable wearers.‡

Under the reign of the Antonines, sculpture began to lose its graces, and the Roman work found in Britain is of rude execution, like that of Italy under the Gothic and Lombard kings.§

**PAINTING.**—The Greeks preferred sculpture to painting, the Romans the reverse. Pliny has given a history of the art, which has been most ably epitomised in the disquisition of Ameilhon¶, and collated with the incidental observations of other writers; but the whole history is that of the dates of improvements and new inventions before the time of Apelles. In his era, that

\* Flaxman, 166.

† Id. p. 8.

‡ Id. 167.

¶ Id. p. 8.

† Flaxm. 251.

¶ Mém. Instit. i. 374. et seq.

of Alexander the Great, the art, says Cicero, was perfected. A few observations must, therefore, suffice in a limited work like this ; for attempts at outline, however rude, and patches of colour, are found in the idolatry of all nations—the *monochromata*, or paintings with only one colour in India, and the *polychromes* in the tombs of the kings at Thebes. *Facile est addere inventis*, and the Greeks, with their divine taste evinced in their sculpture, may, from the study of the human figure in nudity, and knowledge of anatomy and geometry, have perfected drawing ; they may have, in shading, successively progressed from hatching \* ; they may have put a ground of black, upon which they drew in white the contour of the eyes, eyebrows, nose, and incipient hair † ; they may have mixed or contrasted black and white, an invention ascribed to Philocles or Cleanthus. ‡ They may have laid deeper tints of the same colour when the object was in shade, and fainter under light, and formed the *απο χρωσις σκιας*, or privation of colour in the shades, by means of obscure tints : all these may have been Greek improvements. To them also may be ascribed the expression, which, says Pliny, *tenet oculos* ; its fine touches, *argutiæ vultus* ; and what the painters call *balancing*, *symmetria*. The use only of four colours — white, yellow, red, and black — is presumed to be erroneous, because the Egyptians knew others ; and the paintings in the grotto of Elethias seem equally to disprove their ascription of barbers and cobblers' shops, provisions, &c. (our Dutch pieces), to Pyreicus and his partners, called Rhyparagraphoi. Pliny maintains that the art did not come from Greece to Italy, but he is confuted by Ameilhon §, who says, that, before the foundation of Rome, a Greek artist painted, at Lanuvium, a work which was admired in the time of Caligula.

The most ancient specimens known of design in this art are the famous vases called Etruscan. Of the ori-

\* Mém. Instit. i. 386—7.

† The hunting of the Calydonian boar, described by Homer (Il. ix.), painted upon the Hamilton vase (No. 1.), is the grand specimen.

‡ Ameilhon, 394.

§ P. 400.

gin and character of these there has been much disquisition. Professor Hausmann, in an elaborate treatise on the subject \*, which, as being the most authoritative, shall be here used, maintains that the greater part of these vases are of Grecian origin, because they are all essentially of the same character. The prince of Canino, on the other hand, says, that those found on his own estate must have been Etrurian, because Vitulonia, where they were discovered, was extinct in the early ages of Rome, and painting was not then known in Greece. In invalidation of this opinion, the professor again observes, that the authentic Etruscan vases may be distinguished from others by the inferior quality of their materials, by the dulness of their coating, and especially by the greater rudeness of their forms and paintings, as well as by certain characters of the representations peculiar to the ancient Etruscan art. The earliest date of them cannot be ascertained, but the latest period in which they were manufactured is presumed to be that of the civil wars, for the vases of subsequent era found at Pompeii, &c. have a very different character; they have no paintings, but frequently raised figures, and a red coating, similar to the vases dug up in Rome, Germany, France, &c.

The finest of all these vases, as to paintings and varnish coating, have been found at Nola; next to them, those of Locria and Agrigentum; but others, very fine, have been found in other parts of Italy; more rarely in the middle part, and none north of the Apennines. They are not to be confounded with the presumed later *Aretine* vases of Martial, Pliny, and Isidore, which have a red or blackish coating, and in other respects are of similar composition with the oldest Etruscan vases.

The most ancient kind is deemed those called Egyptian, where the paintings are of a dusky red colour, upon a yellow ground. Less ancient than these are the vases called *Sicilian*, which have black paintings upon a reddish yellow ground; and next to them, and most

\* Edinb. Philos. Journ. Ap. 1825. Gent. Magaz. xcv. p. 165, &c.

common of all, those with reddish yellow figures and ornaments, upon a black ground.

The subjects of these paintings are chiefly taken from mythology and the Iliad : and, in the prince of Canino's specimens, inscriptions, announcing the subject, are annexed, a practice unknown to the Greeks. The figures have a compressed abdomen and spare limbs, because, Aristophanes observes, to be slender in the waist like a wasp (*σφηκωδεις*) enabled persons to be more active, and better fitted for defence, warfare, and the chase. Through the imperfect knowledge of perspective, the ancients could not execute complicated groups, and the figures appear, like profiles of their statues, unconnected with each other.\* Bearded Mercuries, and a beautiful variety in the disposition of the female tunic, distinguish these vases. Asiatics are denoted by flowered garments ; travellers by staves, on which they rest ; persons of rank by parasols and footstools ; genii by winged youths ; and Asiatic warriors by bows and axes. The dolphin is the national symbol.

*Domestic economy.*—It was a rule adopted by Pliny and others, that the antiquity of matters connected with the subjects before us is to be decided by the mention or omission of them in the poems of Homer, to which the moderns have added the discoveries made at Herculaneum and Pompeii. But it is evident that the manners of the Iliad and those of the patriarchal and early ages of the East†, that Homer only recorded inventions antecedent to his own era ; and that when he mentions Helen employed in embroidery, he only alludes to an act spoken of by Apollodorus, who is considered to be an abbreviator of the Cyclic poets.‡ The same oriental origin attaches to the arts both of Greece and Rome ; and, did not Herodotus record the intercourse of the Sidonians, Eginetans, and Corinthians with the early Tarentines§, and Pliny || acquaint us that at Egina only

\* Flaxman's I.ect. 133. 213. 252.

† The conformities are exhibited by Mr. Coleridge, *Introd. Classics*, i. 70.

‡ *Mém. Instit.* i. 384.

§ *L. i. c. 24. Thalia*, 137.

|| xxxiv. 3.

the superficies of candelabra was wrought, but at Tarentum the shafts, one circumstance alone would denote a common assimilation; and of course a copy proves the existence of an original. This circumstance is, the distortion of the forms of animals into furniture patterns, a fashion to be seen in the ancient monuments of Egypt\*, and still existing at Japan.† The curule chair occurs in the Theban paintings, and Livy‡ acknowledges that it was introduced into Rome by the Etruscans. At Nola has been also found a vase, representing in form an Ethiopian in the throat of a crocodile.§ It may be, that, in the early ages, the military, sacerdotal, and forensic professions were alone deemed those proper for freemen; the mechanical arts being, as in succeeding times, practised by slaves and women. But authors mistake, when, from the contempt of the Romans for such employments, and the rudeness of home-made tools and furniture among husbandmen and the poor, they infer that elegant articles were unknown. Plutarch|| says, that in the time of Numa, who introduced the Etruscan arts into Rome, the city was chiefly peopled by tradesmen, whom he makes to be musicians, goldsmiths, masons, dyers, shoemakers, tanners, braziers, and potters. Evander is known to have contributed much to the civilisation of early Italy; and many of his countrymen might have emigrant ancestors or tutors of these artisans; for metal-lurgy, both by the crucible and tool, occur in the book of Job, and Livy¶ mentions golden arm bracelets and gemmed rings of great beauty, as worn by the Sabines. Romulus had royal purple robes\*\* ; and Pausanias†† adds, that bronze horses, and figures of female captives, were known at Tarentum, as the works of Ageladas, the Argive. The discoveries in the Etruscan tombs prove the assimilation of the objects painted on

\* See Denon, pl. lv. et alii.

† See Titsing's Japan.

‡ i. c. 8.

§ Gent. Mag. xcix. p. ii. 628.

|| In Numa.

¶ i. 11.

\*\* Plut. in Numa.

†† 326. ed. Sylburg.

the vases to the originals in actual use, and, to a large extent, adopted by the succeeding Italians. But Homer's work will not elucidate all the Etruscan arts. He does not mention rings worn on the fingers; yet it appears from the Bible, that they were in use among the Orientals before his era. Gori showed Barthelemy\* a carnelian in the form of a scarabæus or beetle, insculped with a head and head-dress of a woman in the Egyptian style, yet the stone was Etruscan. He therefore thinks that there was a communication between the Etruscans and the Egyptians; but the Phœnicians also used the beetle-formed signet. The convex form of the beetle, which had the figure of the insect, was the hold for the hand, the under part serving for the device, and a hole was made lengthwise for suspension. This was the fashion before seals and gems were mounted; but the Etruscan gems *are distinguished from those of the Greeks and Romans* by a border of engraved rings, called *grenetis*†; and, as Virgil gives an accurate description of the manners and customs of the heroic ages, the Etruscans and early Italians had mounted rings.‡ From all these instances, it appears, that the Etruscans did not derive their arts from the Greeks; nor the Romans from the Etruscans exclusively, but from them, the Orientals, and the Greeks also: the archetypes of all these arts being to be sought in the eastern nations.

Julius Pollux, who lived in the time of Commodus, gives us a long list of various artisans, with which he unites their tools, and describes other articles. As he writes in Greek, and quotes the denominations and characteristics given by Homer, Aristophanes, Sophocles, and others, he plainly shows what trades and things were common both to Greeks and Romans. A few of them may gratify curiosity.

\* Trav. in Italy, 33.

† Gori, Mus. Etrusc. 431. Mariette, &c.

‡ "Tereti subnectit fibula gemmâ." — Æn. v. 313.

ARCHITECTS.<sup>1</sup> — According to the denominations, there was no original difference between architects and builders. The tools were, stone-saws<sup>2</sup>, in form like the modern; the (lewis or) *forceps* (the Greek word signifies a *crab*), for holding stones<sup>3</sup>; a stone-bearing machine<sup>4</sup>; files<sup>5</sup>; the *γλαρις*, an instrument for excavating and polishing stones; a stone-pick<sup>6</sup>; a trowel, if Brunck be correct in thus translating *ὑπαγωγγευς*; a rod or line, marked with red lead, for drawing right lines<sup>7</sup>; a leaden rule<sup>8</sup>; (probably like the Doric one, a thin flexible strip, to take the form of a stone, so that another may be made to fit it exactly); a pair of compasses in the form of a  $\Lambda$ <sup>9</sup>; chisels; iron wedges; levers, or bars; and planks.<sup>10</sup> To this list of Pollux may be added plummet levels, rollers, pulleys, and cranes<sup>11</sup>; one of these, for raising large stones, being worked by a wheel and men running within.<sup>12</sup> When the materials were so soft that they would not bear the *lewis*, or forceps, there were cut in the sides channels to receive ropes or chains, which were drawn away when the stones were raised and adjusted.<sup>13</sup> Columns and obelisks were elevated by a rope, which wound round an erect cylinder or post, that was itself turned by long levers or arms, in the shape of a cross, pushed forward by men<sup>14</sup>; and, by affixing a wheel or roller at the end of such stones, and rearing similar posts and levers in succession, even large obelisks appear to have been drawn along. The Greeks are said to have universally cramped the stones with iron, the Romans with brass;

<sup>1</sup> Τεκτονες, Hom. αρχι-  
τεκτονες, Plat. τεκτονάρχοι,  
Thucyd. φιλοκοδομοί, Xen.  
Poll. vii. 27.

<sup>2</sup> πριων λιθοπριστης.

<sup>3</sup> κερκινος λιθους εχων.

<sup>4</sup> μηχανη λιθαγουργη, Poll.  
x. 31.

<sup>5</sup> λειας.

<sup>6</sup> δεσφυρα, called also τυκος.

<sup>7</sup> σταθμη.

<sup>8</sup> μολυβδειας κανων.

<sup>9</sup> διαθητης.

<sup>10</sup> Poll. vii. 28.

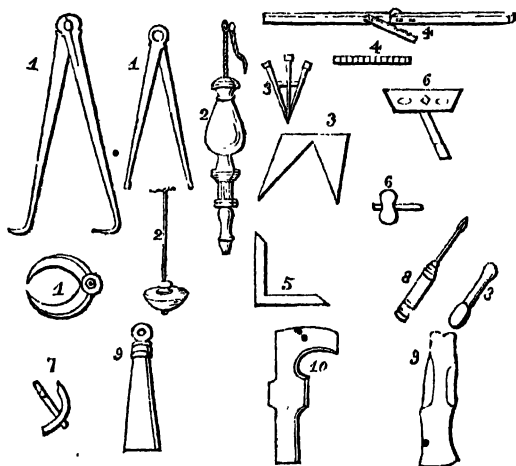
<sup>11</sup> Alberti, lxxxvii. b.

<sup>12</sup> Enc. Antiq. i. 257.

<sup>13</sup> Stuart's Athens, new  
edit. vol. iv. pl. 8. p. 9.

<sup>14</sup> Montfaucon.

but iron binders, leaded at each end, occur at the Colosseum, and dovetails of wood at the Forum of Nerva.



*Fig. 1 1.* consist of proportional and other compasses ; *fig. 2 2.* are weights, suspended from the plummet levels, *3 3.* ; *fig. 4 4.* are rules,; Barthelemy saw one of ivory, another of brass, folding by means of a spring ; *fig. 5.* is a square ; *fig. 6 6.* are mallets ; *fig. 7.* is a sort of pick-axe ; *fig. 8 8.* unknown, but probably soldering instruments, such as Barthelemy saw at Herculaneum ; *fig. 9 9.* chisels ; *fig. 10.* unknown.

**BANKERS.** — Pollux calls a banker *τραπεζίτα*, a term which, he says, properly means a dog standing at a table ; which table, for the convenience of paying and exchanging money, Demosthenes calls, from the material, *ξύλον*, wood. At the Chalcidicum of Pompeii\*, supposed to have served for an exchange where mer-

chants assembled, are pedestals of white marble, upon which these tables were placed, and the fashion not only passed through the middle ages, but is still to be seen at Bristol Exchange. These bankers were the money changers of Scripture, and the *argentarii* and *nummularii* of the Romans, who exchanged old coins for new, and conducted money business in various ways.

BOOKSELLERS, &c.—Pollux mentions writers<sup>1</sup> and venders of books<sup>2</sup>, and the glutination of them<sup>3</sup>, as they were rolls.<sup>4</sup> He makes booksellers' shops among the parts of sea-port towns: and Dionysius of Halicarnassus<sup>5</sup> mentions stands for the sale of them in such places. Martial<sup>6</sup>, describing a bookseller's shop opposite the Forum Julii, says, that all the pillars or posts were inscribed with the titles of the vendible books; and that the best books were kept in the upper *nidus* (pigeon-hole), the inferior in those below. There, he says, you may buy Martial, polished with pumice-stone, and ornamented with purple, for five *denarii*.

BUTCHERS.—The heroes of Homer killed and dressed their own meat, and Pollux identifies the two professions of cook and butcher.<sup>7</sup> Their tools were, a hatchet<sup>8</sup>; a *ράκεντρον*, translated *runca*, which would imply something like a weeding-hook, or rustic bill; a *κρεασταθμη*, a rod for *measuring* meat, according to the Greek, but also rendered scales and weights; a flesh hook<sup>9</sup>; skinning-knife<sup>10</sup>; and chopping-block<sup>11</sup>. Plautus mentions their stands, and Pollux<sup>12</sup> calls the shambles *μεισκωνια*, although the Latin *macellum* means a general provision market. Whether they wore the steel or not is not clear; but the *στομωμα* was certainly a

<sup>1</sup> βιβλιογραφος.

<sup>2</sup> βιβλιοπωλης.

<sup>3</sup> βιβλιδίου κολλημα.

<sup>4</sup> vii. 33.

<sup>5</sup> x. 5.

<sup>6</sup> Ep. i. 118.

<sup>7</sup> vii. 6.

<sup>8</sup> κοπις.

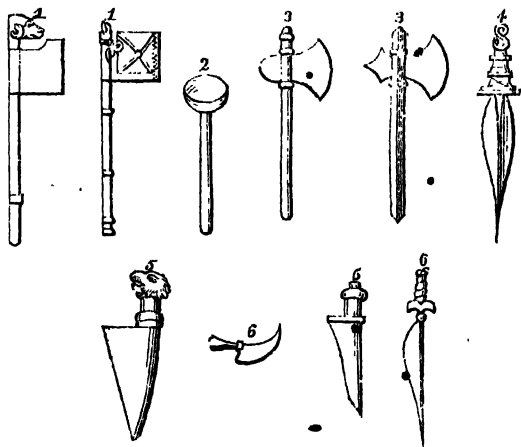
<sup>9</sup> κρεαγγρα.

<sup>10</sup> κρεαδευρα.

<sup>11</sup> τραπεζα μαγειρικη of Pollux (x. 24.), mensa lanionia of Suetonius (Claud. xv.).

<sup>12</sup> x. 5.

sharpening tool of the kind.<sup>1</sup> There is a game, the Greek *επαλλαξις δακτυλων*, the Latin *micatio digitorum*, the Italian *morra*, which Helen is said to have invented, and to have won at it in playing with Paris ; but it is the Chinese *tsoey-moey*. It was played between two persons, according to the most probable explanations, by suddenly raising or compressing the fingers, and at the same time guessing each at the number of the other. Meat was purchased by this game, until, according to Burman<sup>2</sup>, an edict of Valentinian revived the old custom of weighing ; Theophrastus says with scales.<sup>3</sup> Homer mentions the prostration of the victims by a *malleus*, or the hammer side of an axe ; and the following cut shows the forms of these tools and knives.



*Figs. 1.* consist of hatchets from Barthelemy. *Fig. 2.* is a *malleus* for prostrating the beast. *Figs. 3.* are double-headed axes for the same purpose. *Fig. 4.* is a *seva*,

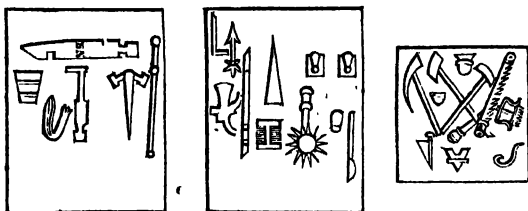
<sup>1</sup> Poll. vii. 24. 49.

<sup>3</sup> P. 30. ed. Casaub.

<sup>2</sup> Petron. i. 237.

or *secespita*, a long knife for cutting the throats of the larger animals. *Fig. 5.* is a *dolabra*, or great knife, for dismembering the larger beasts. *Figs. 6.,* the *cultri* or *cultelli*, are lesser knives for the smaller victims.

**CARPENTERS** (ξύλουργοι, *fabri lignarii*). Pollux makes their tools a chip-axe, or adze<sup>1</sup>; a wood-cutting axe<sup>2</sup>; a boring instrument (τρύπανον, whence our *trepān*), with its handle<sup>3</sup>; a gimblet<sup>4</sup>; the *αῖρις*, severally translated by *forceps* (pincers), and *scobina fabri*, perhaps *ξοῖς*, or *ξύλη* of Pollux; a plane, the *run-cina* of Varro and Columella; a saw<sup>5</sup>; a file<sup>6</sup>; and the *bipennis* of Homer.<sup>7</sup> Pliny<sup>8</sup> adds the perpendicular; glue, *ichthyocola*, a sort of glue made of fish-skin, the level, rule, and lathe. Pollux adds<sup>9</sup> iron tools in common use with masons, as chisels<sup>10</sup> and others. Carpenters also used the trade of joiners, with regard to veneering, staining woods, and inlaying them with ivory and tortoise-shell. They even coloured these, to make them resemble woods. For most work, the ash was the favourite wood.<sup>11</sup>



**COOKS.**—Pollux identifies cooks and butchers, as to implements used by both, but he mentions others appertaining only to the former. These were cisterns or

<sup>1</sup> σκεπαρνον.

<sup>2</sup> πελεκυς ξυλοποκοπος,  
Xen.

<sup>3</sup> τρυπανουχος. 1 Poll. x. 31.

<sup>4</sup> τερετρον.

<sup>5</sup> πριων.

<sup>6</sup> πριστις, ἡ καλουμένη βινη.

<sup>7</sup> Poll. vii. 24. 26. x. 31.

<sup>8</sup> vii. 56.

<sup>9</sup> vii. 28.

<sup>10</sup> τυκοι, cæli.

<sup>11</sup> Theophr. iv. 5. Plin.  
xvi. 43.

vessels for holding liquids<sup>1</sup>, platters<sup>2</sup>, *ισχαραί*, either hearths or chafing-dishes, fastened with lead<sup>3</sup>, fish-knives<sup>4</sup>, larger and smaller spits<sup>5</sup>, frying-pans, in which, Athenæus says, they fried fish alive, some versatile, in the form of a winnowing fan<sup>6</sup>, a flesh-hook<sup>7</sup>, a ladle<sup>8</sup>, one for broth or skimming<sup>9</sup>, spoons, caldrons, bronze vessels, Dutch ovens (*clibani*), stoves, and vessels, in which they carried live coals, chafing-dishes, knives (some for skinning), the iron upon which the spits were placed for roasting (the meat being *over* the fire), pestle and mortar, bread-chest, dresser, chopping-block, scales and weights, or steelyard (*κρεστοαθμῆ*), colanders, funnels, gratings over stoves (used as gridirons), *δευτηρας*; vessels for sprinkling water, &c.; pits, called *ευστραί*, in which sucking pigs were roasted<sup>10</sup>, and a frying-pan made of pottery.<sup>11</sup>

Pollux also enumerates various sauces used by them, for Livy says that the Asiatic army converted a domestic drudgery (*ministerium*), performed by the lowest slave of the household, into a trade or profession (*ars*), and that from hence ensued more expensive banquets.<sup>12</sup> Pliny mentions culinary vessels of silver, and in the Portici Museum are bronze kettles of different sizes and shapes, and brass dishes and eating plates, upon which were laid the *quadra* of Virgil, square pieces of bread, to receive the meats on account of the fat.<sup>13</sup> — See DRIE-PING-PANS.

<sup>1</sup> *χυτραί*.

<sup>2</sup> *λοπαδες*.

<sup>3</sup> *μολιβδοδετους ισχαρας*.

<sup>4</sup> *ιχθυοσπίδας*.

<sup>5</sup> *οβελους, οβελους βουπο-  
ρους, οβελισκους*.

<sup>6</sup> *τηγανον, τηγανωστροβιον*.

<sup>7</sup> *κρεαγγρα*, called also *λυκος*  
and *εξαυστηρα*.

<sup>8</sup> *τορυνη*.

<sup>9</sup> *ξωμυρησις*.

<sup>10</sup> *ετηρησιον, λεβητας, χαλ-  
κεια, κριβανους, βαυνους, ιπνους,  
πυρανους, αγγεια, οἱς τοὺς ἐμ-*

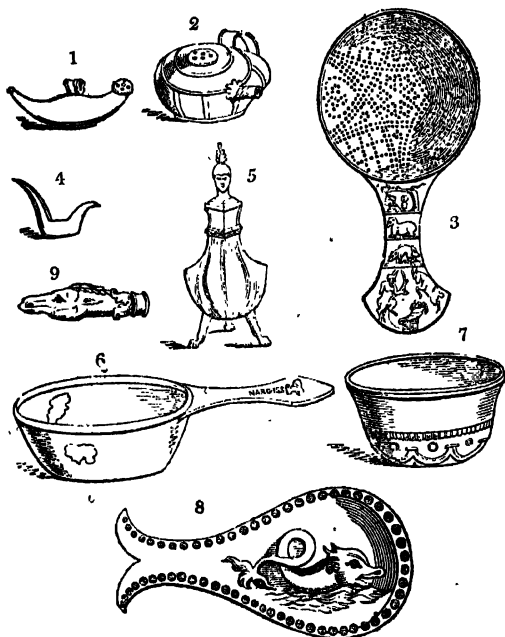
*πυρους ανθρακας κομιζουσιν, ε-  
σχαραδας, ιππολεθητιον, δεομα-  
κτηρα, χυτροσφυλον ηθμον  
κοπιδα, μαχαιρας, δοριδας, τυ-  
ροκνηστιν, κρατευτηριον αλε-  
τριδανθ, δοιδυξ, αβαξ, καρδεπος,  
δυεια, ξανιον, ευστραι, &c.*  
Poll. vi. 13.

<sup>11</sup> *αγνειον κεραμευον*, Id. vi.  
10.

<sup>12</sup> P. 642. ed. Elzev.

<sup>13</sup> Pintian in Plin. 568.  
Plin. xxxiii. 11.

*Fig. 1.* is presumed to be a vessel for sprinkling water, the *δινη*, for it is called a vessel by Pollux;



2. unknown; 3. a colander or strainer; 4. a ladle (*trulla*); 5. a three-footed boiler; 6. a skillet; 7. a dish, presumed for soup; 8. a spoon; 9. a knife handle.

*Dice-players.* — Pollux makes a profession of these persons, and calls them *κυβηταί*, *aleatores*. Their instruments he makes to be a large and smaller chess-board<sup>1</sup>, a sieve<sup>2</sup>, square dice<sup>3</sup> (*tesserae lusoriae*, men,

<sup>1</sup> *αβαξ*, *αβακιον*.

<sup>2</sup> *κοσκινον*.

<sup>3</sup> *κυβοι*.

or counters), flat dies or *tali*, astragali<sup>1</sup>, dice-boxes<sup>2</sup>, ballot-boxes<sup>3</sup>, a dice-table.<sup>4</sup> Æschines says, he passed the day in the dice-room (*κυβειον*, *aleatorium*), where the *τηλια* is placed, and cocks are set to fight, and dice are played with<sup>5</sup> dice-box or vote-box, the *κηθικον*, *κηθιδιον*, described as a vase, *calculi*<sup>6</sup>, and *πιττοι*, or *πεισσοι*, counters.<sup>7</sup> Each of these articles requires a distinct elucidation. The chess-board, or *abacus*, was of Asiatic invention, Pliny describing one with *tesserae* (the men) brought from thence, four feet long and three broad, made out of what he calls two *genus*, possibly glass, or laminæ of spar. That in Petronius is made of fir, with men of crystal. According to the description of Salmasius<sup>8</sup>, it was square, and divided by twelve lines, called the *duodena scripta*, on which the men were placed according to the points thrown. The twelve lines were intersected by a transverse line, called the *linea sacra*, which they did not pass, except under compulsion. When the counters had got to the last line, they were said to be *ad incitus*, a metaphor for being reduced to extremities. It is plain that this was a game played with dice, and similar to our backgammon, the lines resembling, also, to a certain extent, our tables inside a draught-board.

This game was one of chance, and quite different in origin and character from the *lutrunculi*, which was only played with counters. According to the Pompeian sign of an alehouse, the board was the modern chequer. The game was certainly intended to represent movements in warfare; whence the squares were termed *polis*, a city, or *chora*, a region, or *mandra*, an enclosure, and the men were termed *militēs*, or *lutrōnes* because anciently the latter term was applied to *stipendiary* or mercenary troops, from the Greek *απο του*

<sup>1</sup> διασειστοι αστραγαλοι.

<sup>2</sup> φιμοι, mentioned by Horace.

<sup>3</sup> The *κημοι* of Aristophanes.

<sup>4</sup> τηλια.

<sup>5</sup> Valpy.

<sup>6</sup> ψηφοι.

<sup>7</sup> Poll. x. 31.

<sup>8</sup> Hist. Aug. 467

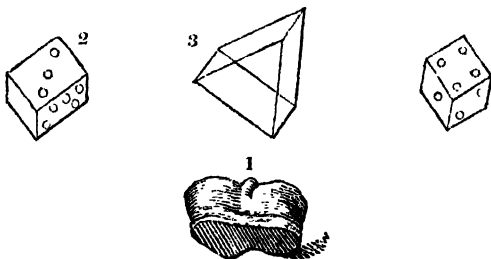
λατρυειν.<sup>1</sup> These *men*, as we call them (but the ancient  $\downarrow\eta\phi\omega\iota$ , *calculis latrunculi*, or *tesseræ lusoriæ*), were round counters made of pottery, glass, &c., and some found near St. Dizier were made of ivory or bone, and somewhat thick and convex. They were in number *thirty*, fifteen of one colour and as many of another. How the game was played is no further certain, than that it was *not* chess, and that two men of one colour took (*ceperunt*) one of another, whose move, if it was prevented, was termed *ligatio*, and that they expressed progression at the commencement of the game by *dare*, and retrogression by *revocare*. Upon a bas-relief of a Trajan and Plotina at the Capitol, is a young man holding an *abacus*, upon which are placed a first rank of seven men, a second with only one, which he is passing with the fore-finger of his right hand, and a third rank reduced to six, on account of the one passed upwards.

These were games with dice, which did not require any other board than the table ( $\tau\eta\lambda\iota\alpha$ ) before mentioned. The most common game was with three dice, and consisted in the *raffle*, a word derived from  $\beta\alpha\iota\omega\iota\alpha\ \alpha\phi\epsilon\lambda\iota\omega\iota\varsigma$ , the highest number turned up being the winner. The second game was wishing for a certain number, and winning upon the success. The dice played with in these games were cubes, like ours, and many of them made of wood and earthenware have been found at Burzach and Baden in Switzerland, and tower-shaped dice-boxes of ivory at Herculaneum.

The Greek *astragalos*, the Latin *talus*, the French *garignon*, and our *cockal*, signified the pastern or huckle bone of a beast, particularly of a sheep, and the game was played by the suitors of Penelope. Propertius, Martial, and Juvenal show that the forms of these bones were imitated in ivory, gold, and bronze: specimens are frequent (see *fig. 1.*); but there were other *tali*, square and triangular, but flat. (See *figs. 2. 3.*) The excavations at Herculaneum show the conversion of the

<sup>1</sup> Rosin. 311.

actual bones into *tali*, and count Caylus has given some of agate. It appears that some of them at least were numbered. The *ludi talorum* are not to be confounded



with the *ludi tesserarum*; for in the former *four tali* were used, in the latter *three dies*. The boxes, too, (*φύλλοι*, *fritilli*), from which the *tali* were thrown, were different. These boxes were round towers (Ausonius says "wooden"), larger below than above, without a bottom, and worked within with steps<sup>1</sup>, so that the bones or *tali* made leaps or cascades before their fall. Both *tali* and dice were sometimes used for divination, and there is no doubt of the origin in children's play, but the explanations of the games given by Winckelmann and others are not satisfactory, for authors are perpetually confounding the *dice* and *tali*, and even Seneca calls the latter *tesserae*: —

"Nam quoties missurus erat, *resonante fritillo*,  
Utraque *subducto* fugiebat *tessera fundo*."<sup>2</sup>

Thus does it appear that the *talus* box, having no bottom, dispersed the *tali* in a manner different from that of the cubical dice, of which the box had a bottom. Suetonius<sup>3</sup> shows clearly, at least one game, for he says that upon casting the *tali*, they who threw unlucky numbers deposited a forfeit of a denarius each, and thus

<sup>1</sup> "Fundunt excelsi per cava buxæ gradus."—*Auson.* Rosin. 313.    <sup>2</sup> Rosin. 314.    <sup>3</sup> Aug. p. 185. ed. Delph.

made a *pool*, which was swept away by him who threw the Venus; that is, of the four *tali* used, one an ace, a second a three, a third a four, the last a six.

The term *alea* was used for any game of chance, whether with dice or *tali*.<sup>1</sup>

The sieve mentioned by Pollux referred to the *Coscinomanteia*, a mode of divination, practised by turning a sieve, suspended by a thread or placed upon a point.<sup>2</sup> The *urns*, or ballot, or vote boxes, are thus explained by Rous<sup>3</sup>:—“*Casting or drawing lots was either with αστραγαλοι or tali, cast into a box, or with tesserae (γραμματια, Plutarch calls them), little wooden tables with letters upon them, drawn out of a pot; or calculi, little balls of earth, with marks upon them for the names; sometimes taken out of a pot, and sometimes thrown into a well, whether to see which came up first, or how it was, I cannot tell.*”

FULLERS. — Pollux classes fullers<sup>4</sup> with modern scourers<sup>5</sup>, and makes their implements and materials a fuller's *vessel*, according to others, shop<sup>6</sup>, the teasel (i. e. thistle<sup>7</sup>), the wool-card<sup>8</sup>, caldrons<sup>9</sup>, nitre, especially the Chalastræan<sup>10</sup>, from the lake of Chalastra, in Macedonia; lye<sup>11</sup>, made of water and ashes, mentioned by Plato, not from the chemical action, but as a menstruum for washing away filth (εντι των ρυπτικων), says Pollux; fuller's earth<sup>12</sup>, or rather chalk, from the isle of Cymolus, the “*cretosi rura Cymoli*” of Ovid; a press, which ‘the word *ιπος* seems to imply, and sulphur. Thus Pollux; but, an abstract shall now be given of Ameilhon's excellent dissertation upon this art. The first process was to clean the wool from the grosser impurities, and this was the occupation of fuller's

<sup>1</sup> Rosin. 314.

<sup>2</sup> Theocr. Id. iii.

<sup>3</sup> Archæolog. 371.

<sup>4</sup> κναφεας.

<sup>5</sup> παιδρευετας.

<sup>6</sup> κναφειον.

<sup>7</sup> κναφος, ή τροσφορα αυτεις  
ακανθα.

<sup>8</sup> From κναπτειν the verb.

<sup>9</sup> λαβρα.

<sup>10</sup> λιτρον, λιτρον χαλα-  
στραιον.

<sup>11</sup> κονια.

<sup>12</sup> κιμωλια.

children. To cleanse it from the natural grease, they next boiled it in pure water ; but, as this was insufficient, they used afterwards lye, prepared from wood-ashes and urine, because it contained various salts, which, in combination with the fat of the wool, formed a kind of soap. Pliny says, that fullers were not subject to gout, because they had their feet habitually plunged in the excremental fluid. After passing through the urine bath, it was cleared from that by lotion in a large pool of water, — “ the fuller’s pool of water.” The finishing process was to immerse it in a bath, containing a decoction of the herbs *στρουθος*, or *struthium*, a plant which had the property of bleaching, and presumed to be the *borith* of the prophets Jeremiah and Malachi. Soap, which was at first only a pomatum for the hair, invented by the Gauls, was unknown in these periods, although, as a German article, the use of it, applied to the person and cloth, is clearly described by a writer of the third century of our era. The *soap-boilers’* shop at Pompeii is, therefore, an anachronical appropriation. To the lixiviates before mentioned, the fullers added, for further bleaching, the bolar earths, of which the chief was the cymolian before mentioned, from the isle of Cymolis, now called Argentière. This was mixed with the cloth, which they then *fulled*, i. e. trod, or rather jumped upon, with their feet, and worked with their hands, — an operation now performed by the stocks. They also used rollers (*pilæ fullonicae*) to press and beat the stuffs. What was next done was the process now (and anciently, also, according to Pollux), performed by the *teasel*, a substitute for which was a bundle of prickly plants, drawn over the cloth, and the skin of a hedgehog. The next process was the shearing. The workman, with common shears, cut or detached the little tufts projecting from the stuff ; and these, with the wool further extracted by the instrument, formed the flocks of cushions and mattresses. To complete the whiteness necessary, the cloth was

fumigated by sulphur. To confer lustre, the cloth was pressed by a machine, called the *πτος*, presumed to consist of two planks, between which the cloth was placed, and pressed down by weights or a vice.

Such was the process, whether to prepare the wool for the dyer, or to give the cloth its last touch, after it was returned by him. We have now to state how the same artisan treated linen and cotton.

The art of dyeing linen is, according to Pliny, not older than the time of Alexander ; but linen being more susceptible of a purple dye, sails of ships so coloured may be (and, according to authors, are) of earlier date. It is to be observed, that vegetables have less disposition than animal matters to receive colours. Spain was the country which, for the most part, supplied the Romans with linen fit for dyeing. The first step was to bleach it well, because it had a glutinous surface, which prevented the contact of the thread with the colour. The ancient fullers, therefore, washed repeatedly the cloth in a lye and solutions of soda, probably exposed it on the grass, as now, and finished by boiling it with a plant of the poppy kind, called *peracleon*. The process was nearly the same with cotton, an article in much more use with the Asiatics and Egyptians than the Greeks and Romans.

The trade of a fuller is one of most ancient date, and, because it required a great supply of water, their workshops were generally placed upon the banks of rivers, or near springs. (A fuller's pool, called *fulonica*, is represented in the plan of a house in the street of the Mercuries at Pompeii. *Pompeiana*, 2d series.) Here are paintings representing fullers at work. In one, they are stamping the cloth in a large bowl of pottery ; in a second, a man is carding, with a carding comb, a piece of cloth suspended from a bar ; while another is carrying a demi-oval frame, upon which was stretched the cloth intended for fumigation. They did not work for the dyers alone, but scoured and whitened cloths and linen for personal and domestic

use. In large establishments, they had annual contracts for such works, — some even kept a fuller of their own. They had also the art, called *interpolatio*, of raising a nap upon old cloth, by a sort of carding instrument. They united the trade of *scourers*, because the customs of dining in a reclined position, and pouring perfumed oils upon the head, often occasioned large stains of grease, &c. They had, likewise, the practice of letting out clothes for hire, and are charged with having so used those of their customers, even with having worn them themselves. So keen were the ancients for gossiping, that the fulleries were, like the barbers' shops, places of rendezvous even for philosophers and grammarians.<sup>1</sup>

*Glass Manufacturers.* — Pollux throws no light upon this subject ; but it is evident that, whatever may have been the demerits of the manufacture, as to blueness and dimness, the taste, from the numerous articles found at Pompeii, is, as to pattern, indubitable. Pliny<sup>2</sup> gives a general but satisfactory account of the process of making it. He plainly shows, that the earthy ingredients were passed through repeated furnaces, and that one part was formed by blowing, a second by the lathe, and a third by cutting or carving, like silver. In short, the liquefaction and coagulation of certain earths having been discovered, the mass was treated like a metal, and greatly improved, until, by certain admixtures, was produced a pure (as it is called) white glass. It is also certain, that it was coloured in the melting by art. Not only paste glass and imitation of gems was produced, but changeable tints, according to the points of aspect. The first glass manufactory known is that of Diospolis, the capital of the Thebaid ; and the Egyptians had the peculiar distinction, according to Athenæus<sup>3</sup>, of knowing how to *gild* glass. It was applied to many more than the modern uses by the ancients.

<sup>1</sup> Ameilhon, Mém. de  
l'Institut. i. 586.

<sup>2</sup> xxxvi. 26.  
<sup>3</sup> v. 5.

Drinking-glasses, the “*vitro bibis*” of Martial (Ep. i. 38.), precisely as found at Pompeii, the form of our jelly glasses, are the *ύαλινα εκπωματα* of Aristophanes; who classes them with those of gold<sup>1</sup>; and, according to some found in a bagnio at Pompeii, they appear to have been employed on very strange occasions.<sup>2</sup> In the second series of the Pompeiana, part i. mention is made of the discovery of glass bottles with handles, *fluted tumblers*, and circular glass vases.

**HORSE-BREAKERS.** — Pollux unites this art with that of plain grooms, as given above; but skill in the art was deemed of too great importance to be lightly passed over. The *equorum domitor* became a title of honour among the ancients, because it signified a soldier, or chief, who fought on horseback, and skill in riding or driving was a requisite qualification of such warriors<sup>3</sup>; but there were also professional riding-masters, alluded to by Xenophon, “*Equisones*.”<sup>4</sup> The manner of breaking horses was various in different countries, but that of the Greeks and Romans was in essentials this: Xenophon directs the colt to be rubbed and stroked in those parts of the body where he was most likely to receive the most pleasure, and these were deemed the parts most covered with hair. The groom was ordered, likewise, to lead him through crowds, and familiarise him to sights and noises of all kinds. The Greeks had a bridle armed with teeth, which came over the nose, like our cavezons,<sup>5</sup> and very severe in its effects; and there was a very rough bit, called the *lupatum*. These methods were applied, so far as was necessary, before the smooth bit.<sup>6</sup> In the processes of teaching, the horses were moved in circles, that they might be made supple, and ready to turn any way.<sup>6</sup> The Parthians, in training their horses to go safely over rough ground, and lift their feet above opposing objects, dis-

<sup>1</sup> Poll. vi. 16. x. 19.

<sup>4</sup> ii. 77.

<sup>2</sup> Gent. Mag. v. xcix. p. 2.

<sup>5</sup> Id. 41. 72. 260.

628.

<sup>6</sup> Id. 45.

<sup>3</sup> Bereng. i. 49.

posed, on a spot about fifty paces long, and five broad, in rows, boxes or coffers filled with chalk or clay. At first the horses used to trip and stumble, but being taught by repetition to lift their feet higher, and avoid the offending objects, they acquired a habit of bending their knees, and dealing their steps, sometimes shorter and sometimes longer, as the ground required, and thus were enabled to carry their rider in safety.<sup>1</sup> But the Romans, if nature had not furnished the horses with a proud and lofty action, used to tie rollers of wood and weights to their pastern joints, to compel them to lift their feet, a practice particularly required to go safely, skilfully, and with ease to the rider, in the amble.<sup>2</sup> This was the favourite pace with the Romans, and it consisted, through tying the legs, in controlling the steps of the horse, so that he moved two legs on one side together, and the other two in the same manner, and according to this account, the amble must have resembled a gentle canter. Trotting they abhorred, and horses of that pace they called even tormentors, (*cruciatores*) and torturers (*tortores*). To produce time and cadence in the steps of the horses, they were exercised by musical accompaniments, and books of horse music are said to be still existent in Italy.<sup>3</sup> Races were rode down hill in some nations, and when the horse leaped over a ditch, the rider laid hold of the mane, that the bridle might not check him, and when going down a steep or declivity he flung his body back, and supported the horse with the bridle, to prevent his falling headlong down the hill.<sup>4</sup> They were taught also to kneel, that their riders, who had no stirrups, might mount them by jumping, a practice taught by means of wooden horses. They mounted on the off side, by holding the mane and the bridle in the hand. Plutarch<sup>5</sup> mentions colts that would practise

<sup>1</sup> Bereng. 17.

<sup>2</sup> Id. 76. 78.

<sup>3</sup> Id. 86.

<sup>4</sup> Id. 253.

<sup>5</sup> De Ration. Animal.

figure dances, and theatrical horses; and Homer αμ-φικποι, *desultores*, or persons that would leap from one horse to another. But what seems singular is, that impetuous and fiery steeds were deemed unfit for war. The Greeks tried their horses by a bell, and other loud and sudden noises, and, by their behaviour under these circumstances, judged of their tempers and characters. Such horses as were worn out and unfit to serve with the troops were turned out, and, as a mark of dismissal, were branded in the jaw with the figure of a circle or wheel. It was also usual with private people to mark their horses, by branding into their flesh certain figures and marks; as letters of the alphabet, *sigma* and *kappa* being the most common (whence horses so marked were called Καππατιαί and Σανφοραί from *σαν* the ancient name for *σιγμα*), initials of the owner's names, or those which denoted the breed and country, figures of animals, and other devices. Thus Lucian mentions the practice of stamping horses with the figure of a centaur, and Bucephalus is said to have been marked with the figure of a bull.<sup>1</sup>

HUSBANDMEN. — Pollux<sup>2</sup> numbers among them, under one general term (γεωργοί), gardeners<sup>3</sup>, nursery-men<sup>4</sup>, mowers, and venders of potherbs<sup>5</sup>, woodwards<sup>6</sup>, and those who had the management of figs, olives, and vines.<sup>7</sup> The agricultural tools he makes a plough and its adjuncts, a waggon and the same, a winnowing fan<sup>8</sup>, a three-pronged fork<sup>9</sup>, a sickle<sup>10</sup>, a *pastinum*<sup>11</sup> (i. e. two-pronged tool to set plants with, or prepare the ground for them), a flail<sup>12</sup>, a sieve<sup>13</sup>, a spade<sup>14</sup>, a scoop<sup>15</sup>, a milk-pail<sup>16</sup>, a rake or hoe<sup>17</sup>, a scythe or weeding-

<sup>1</sup> Berenger, 44.

<sup>2</sup> vii. 32.

<sup>3</sup> κηπουροί.

<sup>4</sup> φυτουργοί.

<sup>5</sup> κηπεύς.

<sup>6</sup> αλαιοκομοί.

<sup>7</sup> ελαιοκομοί, θριασταί, συκ-  
ωροί.

<sup>8</sup> πτυον.

<sup>9</sup> φριναξ.

<sup>10</sup> δρεπανον, δρεπανη.

<sup>11</sup> κρωπιον.

<sup>12</sup> πλοκος.

<sup>13</sup> κοσκινος.

<sup>14</sup> σκαπανη.

<sup>15</sup> σκαφιον.

<sup>16</sup> σκαφίς.

<sup>17</sup> σκαλίς.

hook<sup>1</sup>, an axe<sup>2</sup>, a digging tool (driven with both hands, as some, or one with two prongs, as others<sup>3</sup>), a chip-axe, a small hatchet<sup>4</sup>, a clod-breaking beetle<sup>5</sup>, and wood-cutting axe.<sup>6</sup> The utensils he makes, receptacles of autumn fruit<sup>7</sup>, places or vessels for dried figs<sup>8</sup>, cheese, &c., baskets of rush<sup>9</sup>, &c., a vessel for grapes<sup>10</sup>, stakes<sup>11</sup>, pots<sup>12</sup>, rods, sticks<sup>13</sup>, &c., props<sup>14</sup>, a press for bruising the olives, with its rope annexed, and the receiver for the expressed oil<sup>15</sup>, culinary and bakers' implements, rushes, brambles, rough sticks, thorns, thistles, &c. to protect the fruit<sup>16</sup> (at the present day, the Italians place boughs of the *Ruscus aculeatus* (butcher's broom) round their bacon and cheese to protect them from mice), shepherds' crooks<sup>17</sup>, staves and walking-sticks<sup>18</sup>, casks or tubs, bread-bins<sup>19</sup>, and skins of goats and dogs.<sup>20</sup>

PLUMBERS.—Whether there were any distinct tradesmen of this calling is dubious, for Pollux expresses it only by *μολυβδοχρησαι*<sup>21</sup>, although Vitruvius plainly denotes the business by the word *plumbarius*, formed from an adjective. According to Pliny, the ancients would have known nothing of such a metal, if Midacritus had not first introduced it from Cornwall and Scilly<sup>22</sup>; and it appears that our ancestors used to export it in their *coracles*, or *cymbæ sulites*, boats made of

<sup>1</sup> αμη.

<sup>2</sup> αξινη.

<sup>3</sup> δικελλα.

<sup>4</sup> σμινυη, σμινυδιον.

<sup>5</sup> σφυρα βωλοκοπος.

<sup>6</sup> πελεκυς ξυλοκοπος.

<sup>7</sup> σπωραι.

<sup>8</sup> τρασια.

<sup>9</sup> ουριχος, αρβιχος, &c.

<sup>10</sup> σταφυλοβολειον.

<sup>11</sup> χαρακες.

<sup>12</sup> καυλικες.

<sup>13</sup> ραβδοι.

<sup>14</sup> ρακτρια.

<sup>15</sup> ορος, τριπτηρ, φορμος, κρατηρ. ♣

<sup>16</sup> σχοινος, βατος, ορχανη, ραχος, κονυζα, κυαφος.

<sup>17</sup> καλαυσοπες.

<sup>18</sup> σκυταλαι, σκιπωνες, βακτηρια.

<sup>19</sup> τιθρι, πιθακναι, πιθακνιδες.

<sup>20</sup> σιπναι.

<sup>21</sup> iii. 11.

<sup>22</sup> Cassiteride insula, vii.

56. See, too, iii. 22.

a basketwork frame, covered with leather.\* In Britain, the mines of it were so plentiful, and near the surface, that a law was made prohibiting more than a certain quantity to be worked up.† The public acts, among the most remote ancients, were written in leaden books.‡

SHIPWRIGHTS (*ναυπηγοι*) are classed by Pollux among the *fabri*, and he makes the necessary apparatus to be planks, iron, nails, sails, pitch, tow, oars, rings, ropes, helms, poles (by which, Sophocles says, vessels were impelled with a fair wind in nocturnal navigation); *σκαλμοι*, scalmi, pegs to which the oars were tied, while the rowers rested, sometimes taken for benches of rowers, thongs, decks, or planking; *αντλια*, a sort of pump for raising water from a well; barrels, ropes by which ships were tied to the shore, other ropes, anchors, drawing machines, props, trenches through which ships were launched into the sea (our *pills*), ladders used to descend from the ships, skins, and *δακτυλιους*, perforated stones for mooring; Pollux and Rosinus, from Bay-fius and Lilius Geraldus§, have given us a regular catalogue of the several parts of a ship, its rigging and appendages: but this book is not to comprise matters to be found in dictionaries.

According to Virgil ||, the alder, being a wood least susceptible of decay under water, was the first wood employed in the shape of canoes; but, to excavation of the trunks of trees, which could not be found, of course, in adequate size, planking naturally succeeded, and with that substitution caulking seams. In making ships the ancients took their patterns from fish; the *carina* (there being no keel), from the back, the prow from the head, the helm from the tail, and the oars from the fins.

The *Argo*, the first ship known in profane history, was no more than a long boat, and having been carried

\* Plin. xxxv. 16.

† Id. xlii. 11.

† Id. xxxv. 17.

§ Miscell. 272.

|| "Tunc *alnus* primum fluvii sensere cavatas."—*Georg.* l. The botanica name of this alder is *Alnus glutinosa*.

by the heroic crew upon their shoulders, was, of course, constructed of those light woods, the ash, fir, cypress, plane, beech, alder, or cedar, which, authors agree, constituted ship-timber. The frame of the proposed vessel was supported by props; the planks (first well seasoned) fastened by iron, or, in preference, copper nails; and the seams caulked with tow, and a sort of rush called *spartum*. The vessel being thus formed was next coated with a compound of wax and resin, and this, it is said, was preferred to tar, because it was presumed to give more lubricity to the vessel in its progress, and protect the wood better from the corrosion of the salt water.\* (The seams caulked in the manner described, were discovered in an ancient vessel found near Florence; and actual remains are far more authoritative than writers.) Alberti †, who first promulgated the discovery of the ship of Trajan, sunk in the Lake of Nemi, says, "I found the timber to consist of pine and cypress, in excellent preservation, which, besides a coating of black pitch, had a double covering of canvass glued on (not simply caulked, as Fougereux has misquoted Alberti), and over it a sheet of lead, fastened with brass nails. There are two kinds of ships, those for burthen and speed; the former being more short and broad (the *εὐρεία σκάδιον*, or broad ship, built by Ulysses), for shortness contributed to the power of the helm." ‡ How they contrived to bend the planks (as now by boiling) does not appear, yet authors say that they were three inches thick, and Alberti § adds, that the kinds of wood used were ductile, and easily warped to the proper forms.

Large ships, like ours, were too unmanageable for the ancients. The size of the vessels is said to have ruined Anthony at Actium. Winckelmann and Piranesi have published a bas-relief of the Clementine museum, supposed, upon the best grounds, to represent the *Antonias*, presented by Cleopatra to Antony. ||

\* Pintianus in Plin. 506. n. 9.

† V. xi. f. lxxi.

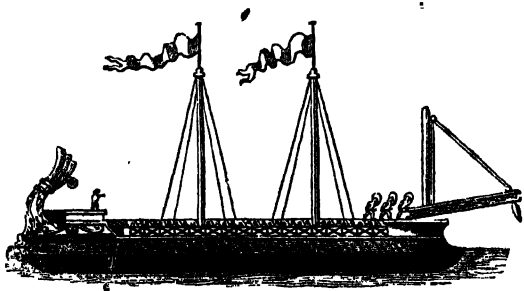
‡ Id. f. xxiv.

§ V. xii. f. lxxi.

|| Mem. Instit. iii. 153. seq.

The bust of the queen is seen below the figure of the pilot.

In short, the vessels of the ancients did not, in modern estimation, exceed the character of what is nautically called "craft." When the Romans, under Appius Claudius, first conveyed their troops to Messina, they had not a single decked vessel, nor even a long one; and Dzuillius won his battles by what was called a *crow*, a figure of which is here given from Le Roy's representation, founded upon the description of Polybius.

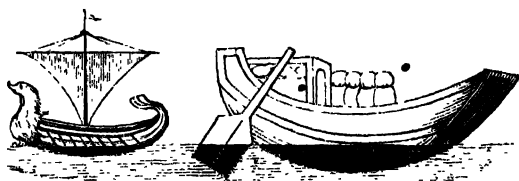


It is, in fact, no more than a drawbridge, with a spike at the end, which was let down upon the enemy's vessel, and through its weight held fast by the spike. Thus the battle was fought by soldiers, who boarded the enemy; and it is stated, that in some actions there were no less than 150,000 men engaged in galleys, which carried 300 rowers and 120 soldiers, and were rowed 50 leagues in one day.† Although between the Punic war and the battle of Actium, the construction of ships of war was much improved, yet the word *trireme* was not limited to ships with three banks of rowers, but, loosely among the Greeks, applied to ships of war in general.

Ships of war were, however, in length, eight times their breadth, commercial vessels half their length

\* Le Roy, sur la Marine des Anciens.

broad. The former were galleys, the latter barges. The Venetian galleys, and the vessels still used in the Adriatic and Mediterranean, retain the ancient character; and the modern *καλαμωταρια* are the *βίπες* of Homer, fascines, generally made of vine branches, enveloping the gunwale, to break the violence of waves, or danger of a sudden heel. The ancient vessels had more than one mast, and square sails like ours, also some sails of the form which appears in the following representation from an Herculanean painting here given. It seems to represent a commercial vessel, and assimilates a barge on the Trajan column and our own medieval ships.



**WEAVERS.**—An account of this art among the Greeks has been given in the preceding chapters; and Ciampini, Bartoli, and Montfaucon have published representations of weaving, which show that the ancient resembled the modern loom, particularly in the second example, the *kerseymere* loom. One woman is standing, the attitude usual in plain work, the *recta* of the Latins, only one thread across, and no more. Such a rude method of weaving is, it is said, still practised in India, the threads with weights being suspended from boughs of trees, and no more contrivance exercised, than what simultaneously causes one half of the threads to progress, and the other to recede, that the shuttle might

\* Ameilhon, *Mém. Instit.* iii. 370, 371. Plin. xiv. 16. xxiii. 1. Pintian. not. in xxiv. ii. p. 451.



pass between them. The *sitting* position implies only relief when weary.

*Fig. 1.* is a woman picking cloth with shears, like the modern.

Such were the principal trades, which, according to the enumeration of Pollux, were common to the Greeks, Etruscans, and Romans. Aristotle notices the division of labour, and Pollux gives a numerous list of inferior artisans, who practised different branches of the same art, but his catalogue is in such instances only lexicographical.

The workmanship of the ancients in metal and wood, has been pronounced no better than that of country blacksmiths; nevertheless, taste was the principle consulted in the manipulation of every thing subject to the eye; and this manipulation was, in general, through the facility of fusing bronze to any pattern, taken from the forms of animals, the ornaments being of foliage. Excess of decoration is more appropriate to Roman than to Greek work. These remarks are necessarily introductory to the second section, viz.—

*Household Goods.*—It is evident, from the specimens on the Etruscan vases, of which counterparts have been found in their tombs, that a very elegant taste prevailed, particularly eminent for a graceful lightness. To begin with furniture appropriate to the various apartments. The plans of Greek houses are no further determinable, than that they consisted of two squares or courts, one beyond the other, as in many of our colleges, which two courts were connected by a broad central passage. The entrance was not a simple gateway, but a lodge, having on its sides servants' rooms and stables. The first court was a peristyle or cloister,

like that of a monastery, the walls being lined with rooms devoted to the establishment. Directly opposite to the entrance was a superb doorway, the *εναπικιον* of Homer, copied by the Romans, in their curtained apertures at the end of the atrium, which doorway opened into the passage, connected with the *οικος*, the modern *haram* or private habitation of the family. Such are deductions to be made from the description of a Greek house in the Pompeiana, the most intelligible of all.

The entrance parts of the house among the Greeks, were the hall-door\*, the garden-door†, and the *οροθυρος* of Homer, called by many, the oblique gate, which led to the upper apartments. All these were sheltered by projections. The doors, which were folding, the *Σανιδες* of Homer, were fastened by locks, bolts, or bars, and had a ring, which Homer calls *κορωνη*, others *κοραζ* used as a knocker.‡ These knockers preceded the use of porters.§ The entrance vestibule, variously denominated, had a lodge called *πυλωριον*||; the *perbona cella* (*very good cell*) of Petronius. In this author occurs a gilt cage, for a magpie, pendulous over the door. The porter, *πυλωρεων*, had also a fierce chained dog, or there was a substitute of a painted one; and sometimes the porter was chained as well as the dog. In the same account, he is described, as wearing a green livery with a cherry coloured girdle, and cleaning peas in a silver dish.¶ It was his office further to sprinkle and sweep the floors, for which purpose he was provided with besoms, made of twigs, and a perforated vase or pot for dropping water to lay the dust.\*\* Juveñal describes a master of a house, in expectation of a visiter, as roaring out, and menacing with a rod or verge in his hand, "Sweep the pavement, clean the columns, and brush away the cobwebs!"†† Horace mentions the fall of a curtain loaded with dust over a dinner table; nor were the Romans

\* *αυλιος θυρας.*

† *κηπαιος θυρας.*

‡ Casaub. in Theophrast. 145.

§ Burm. Petron. i. 139. 466.

¶ L. v. s. 14. v. 61. p. 535. ed. Lubin.

† Poll. l. 8.

|| Poll. x. 5.

\*\* Poll. x. 5.

dirty only. Plutarch says\*, that if a person entered a house unawares, he would, perhaps, find the family in dishabille, the female servants quarrelling or under correction, foul dishes lying about the floor, wenches in lazy or immodest postures, and every thing in disorder. Though the porter often performed the duties of the *atriensis* (the curator of the paintings, statues, &c.), the latter was sometimes an officer of higher rank.† Pollux, after the vestibule or portico, mentions the *προδωμος*, a general term for apartments before the hall, the *πρᾶνλιον*, ante-hall, and the *αἶθουσα* of Homer, or inner hall, open to the air: but these are not the terms of Vitruvius. To compare the Greek and Roman houses together. The first court or peristyle in the Greek houses (for they had no *atrium*) was, according to Barthelémy, turfed in the middle, and the ceilings and walls of the peristyle were adorned with paintings. The Roman atrium was paved, and had in the middle a pond or impluvium; nor in the Pompeian houses is the atrium surrounded with a peristyle. In the early Roman era, the mistresses of families worked at the lanifex, in the atrium, on which account it was furnished with large cupboards‡, possibly corner ones, for such occur.§ It was, also, in the same early times, a common eating-room||; but, afterwards, a superb state apartment, with rich pilasters supporting the ceiling, and furnished with splendid curtains, images of ancestors, fine statues, and spoils taken from enemies. It had also an altar dedicated to Jupiter Herceus.¶ Among the Greeks, an altar to Apollo occupied nearly a similar site. Upon the sides of the *atrium* were in Roman houses *cubicula* or small chambers; but on one side, among the Greeks, Aristophanes says that there was a room, called the *andron*, and a common seat, called the

\* De Curiosit.

† l. 140.

‡ Arnob. ii. 91. Ascon. in Cicer. Serv. Æn. i. 730.

§ Burm. Petron. i. 146.

|| Cato.

¶ From *ἱερός*, *sepulchrum*, because it was included within walls. Test. v *Herceus*. Sueton. Delph. Aug. xcli. p. 212. Halicarnass. l. i. et al.

*exedra*, to which a common cup was sufficient.\* Herodotus says†, that here the arms and spears were placed; and, at the present day, the arms of the Greeks and Turks are ranged upon the walls, as in the middle ages among ourselves. Other offices and rooms opening into the front court were also annexed: among them, the banquetting room, *symposium*, called *τρικλινος*, *πεντακλινος*, and *δεκακλινος*, according to the number of dinner-beds which it contained, and larger or smaller accordingly.‡ This Asiatic custom did not obtain in the time of Homer, when they sat at meals. The custom of reclining, Mercurialis ascribes to the exhaustion and desire of lying down consequent upon the use of the baths. Plutarch adds, that a bed was more convenient than a chair, for a person “making merry.” because it contained the whole body, and kept it from disturbing motions.§ The first mention of it among the Greeks is by Diodorus Siculus, in his description of the feast of Cleisthenes, anno 548 B. C. Scipio innocently introduced from Carthage the fashion in a very humble way, viz. beds of plain wood, with cushions stuffed with hay or straw, and covered with goat or sheep skins, the Greeks not using tablecloths. A cabinet-maker of Rome, named *Archius*, improved the fashion, but people of moderate fortune had no other dinner-beds in the reign of Augustus than the archaic.|| The custom of thus eating became common, even among labourers, in the reign of Nero.¶ The Roman but not the Greek women ate with the men, and at first from modesty only sat; but from the time of the first Cæsars to the 320th year of Christ, they adopted a reclining attitude. These beds were generally three, whence the word *triclinium* for the eating-room, one in the middle, and the two others at each end, one side remaining open for the attendants. The master of the house occupied the right bed at the end of the table, whence, beholding

\* Poll. Onomast. 22.

† Poll. 22.

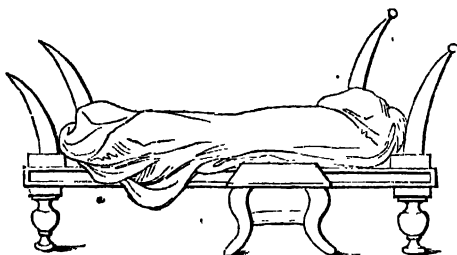
‡ Hor. Ep. v. 1. i.

† Clio, l. i. § 33.

§ Sympos. x. 2.

¶ Columella.

the arrangement of the service, he could more conveniently give orders to his domestics. One place above him was reserved for one of his visitors, and one below for his wife or a relative. These beds were from two to four feet high, of varying forms and sizes, and raised a little at the edge nearest the table, that the guest might eat more conveniently. This is shown in the following pattern of one at Pompeii, made of stone, for



the celebration of an anniversary festival, and of another in a pseudo-garden.



The moveable kinds were often made of, or enriched with, ebony, cedar, ivory, plates of gold or silver, and other precious materials, and had superb

coverings, and soft mattresses. Upon the Etruscan vases we have dinner-beds of the earlier and more Asiatic fashion, appertaining to them and the Greeks. From the Asiatic Greeks the Romans also, as appears from Livy and Sallust, borrowed the *abacus*, or side-board, for holding the vases necessary for the banquet. From these authors we learn, that this piece of furniture was sometimes made of the most precious wood, covered with plates of ivory and gold. According to the remains found at Herculaneum and Pompeii, the *abacus*, in moderate houses, was no more than a marble slab, or table without feet, annexed to the wall, and capable of being let down after the service. To such a sideboard Horace alludes\*, when he says that a *white stone* supported two cups with a *cyathus*; i. e. the small vessel used like a punch-ladle, to empty the wine or water into the drinking cups. Juvenal†, describing the *abacus* of the poor poet Codrus, says, that it was ornamented with six little water ewers (*urceoli*), beneath it a small *cantharus* (i. e. a vase of the cistern kind, shallow, resting on a flat foot, and lifted by two ears or rings), and a reclining figure of Chiron. Danet makes it the same as the Italian *credenza*, upon which were placed in order the pots, glasses, and the dessert, viz. the salads and sweetmeats, and on which the carver cut out the viands, and served portions to each visiter. One at Pompeii is a slab, above which, as over a dresser, are shelves to hold plates, dishes, &c.; and in a bas-relief of the Villa Albani and the Herculanean paintings is another; in both which dead animals and other provisions hang, as in a safe, upon crooks. Athenæus describes a very curious one, made like a ship, but intended, like the cupboard of plate and modern sideboard, more for the exhibition of vases and the dinner apparatus, than of provisions, like the larders and safes just mentioned. Around the mast of this

\* "Lapis albus — Pocula cum ciatho duo sustinet."

† L. i. s. iii. v. 203. One appears in a mosaic, engraved in the Mus. Capitolin. tom. iii., and very often accompanies figures of Bacchus. The famous Warwick vase is a *cantharus*.

ship stood four amphoræ ; upon the prow a candelabrum and lamp, which a mouse is striving to reach ; upon the stern a *cantharus*, i. e. vase with moveable handles. The scuttle of the mast is occupied by a large urn ; the extremities of the yard by two cups ; other parts by many moveables, among them a lamp and crown, with bandelets and *cotyli*, vases with a deep beak, and handles on one side. Lamps pendent from gilt beams, and various statues and paintings, adorned the more magnificent eating-rooms ; and in or near that of Trimalchion was a horologe, by means of which a buccinator, or trumpeter, sounded the hours : the fasces, indicative of his rank, and also two tablets, containing, one, his engagements to dine out, and the other the course of the moon and Pleiades, with the lucky and unlucky days.\*

According to Aristophanes, the male domestics among the Greeks had one common sleeping room, called κοιτων.† The Lacedæmonian youth, says Plutarch, slept in distinct companies, in one common room, as in the modern hospitals and barracks ; the term was also applied to single bed-rooms.‡ Before the doors was a curtain, either of linen, or of various colours, called by the same poet Cyprian. The beds, discriminated by Pollux, were of various sizes, made of oak, box, or ivory ; sometimes with silver feet.§ The construction of some of them was like a ladder|| ; others like a tortoise-shell¶, or with a double head\*\*, or without a pillow for the feet.†† Servants lay upon mats, made of rush, broom, and the down of reeds. The bottoms were formed of bandages or ropes made of the same materials.‡‡ The *scympodium* is described hereafter. The σφενδαμνος, made of maple wood, was the Roman *grabatum* (a vile couch, that Martial calls “ tripes grabatus ;” a three-footed one ; and a passage in Aristophanes makes a basket) ; upon which lay slaves. The bedding consisted of blankets, cushions, and coverlets,

\* Burm. Petron. i. 153. seq.

† P. 464.

\*\* κλινη αμφι, ιφθαλος.

† Poll. 26.

|| ινηλατα.

†† χαμουν.

‡ Id. 464.

¶ χιλωνη.

‡‡ Pollux.

formed of tapestry work, woven in patterns, or embroidered—some shaggy on both sides: and Homer ascribes similar properties to a goat-skin thus used. Blankets were also so woven. To these were added mattresses (*eulitra*), never stuffed with hair; cushions (say rather, beds), and pillows, covered with leather, woollen, or linen, and stuffed with feathers, straw, down of reeds. There were also *stragulae* of linen\*, answering to our sheets. There is nothing, in either authors or monuments, which clearly shows the use of curtains; but from the word *κωνοπεια*, tent-beds have been ascribed to the Greeks; whereas *κωνοψ* means a *gnat*, or *mosquito*; and the derivative, *conopœum*, or *canopy*, implied a covering to keep off those insects†; and the *testudineum conopœum* of Juvenal‡ was a tester, attached to cradles, to secure infants from being stung. The Delphin editor of Suetonius§ adds, that curtains were invented to save the trouble of an attendant with a fly-flapper, as mentioned by Terence.||

The Roman bed-rooms are called *cellulae* by Petronius¶, and are, at Pompeii, very small. They were vaulted\*\*, and had a little window, for privacy, placed near the roof, square, with a curtain and shutter, to exclude wind.†† In the chambers of the second story of Hadrian's villa are alcoves for placing the bedsteads; and Plutarch‡‡ mentions bed-chambers as upper rooms. The spare bed-room was called *hospitale cubiculum*.§§ Among the Greeks, the *thalamus* and *amphithalamus* had the same appropriations. At Pompeii the bed-rooms have tessellated pavements and paintings on the walls.

The Greek and Roman bed<sup>\*\*\*</sup> were six feet long and three broad, according to Aristotle and Hyginus;

\* *τυλίσια*.

† L. ii. s. 6. v. 81. Lubin. 232.

‡ Eun. act. iii. sc. 5.

§ Winckelm.

¶ "Qua lucem thalamis parva fenestra dabat."—Ovid. Miss Knight's *Latium*, p. 36.

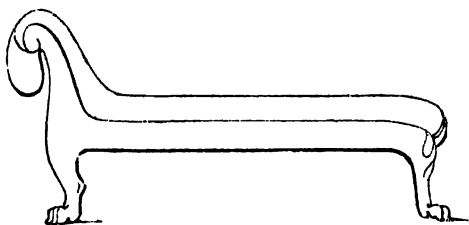
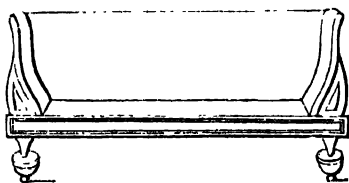
†† In Pelopidas.

† Valpy's *Fundamental Words*, 157.

§ Aug. c. 82.

¶ Burm. i. 59.

§§ Livy, i. 58.



and mention is made of two in every room ; one (*κλινη*) for sleeping, as above, the other for lounging, smaller ; the *κλινιδιον* or *κλιντηριον* of Pollux — perhaps used for the after-dinner naps, taken by Nestor in the *Odyssey*, by Augustus, and the other Romans. They were nearly of the form<sup>4</sup> of a sofa ; and this, in Boissard, has no



back. They were made, among the Romans, of ebony, cedrat\*, enriched with inlaid work or figures in relief : sometimes of ivory, massy silver, with feet of onyx, &c. ; though one, at Pompeii, was only of iron. According to Martial, as according to Pollux, before quoted, the

\* *Citrus medica*, Lin.



bedding was laid, instead of sacking, upon latticed bandages, supported by a bed-cord.\* The bedsteads were placed along the wall; and in the side next to that called *pluteus*, the women and children slept; in the *sponda*, or outer side, the men.

The bedding consisted of *paillasses*, or mattresses stuffed with straw, wool, flocks, or dried vegetables. It is said that the Romans at first slept upon straw; to which succeeded dry leaves, skins of beasts for mattresses, and to them mattresses of the wool of Milesians and down beds, imported from Egypt, on account of the number of geese there kept. Livy (xxxix. 6.) makes the *lecti ærati* (*bronze bedsteads*) and precious bedclothes introductions through the Asiatic army. The beds on the vases appear uncommonly full; so were also the Roman, the feathers being sometimes those of the peacock.† Those for old men were exceedingly soft‡,—probably of down, of which the finest sort was used for the pillows of ladies.§ Bed-coverings consisted of skins of sheep|| or goats with the wool on, called *σιτυρα*, *sisura*, &c.¶; and if we may interpret *lodices* exclusively by blankets, Martial mentions a pair sewed together. The *Cadurci*, and some other nations of Gaul,

\* v. 63.

† Mart. Apophor.

‡ Plut. Sen. &c.

§ Mart. Apophor. Juven. &c.

|| Plut. Dec. Orat.

¶ Amman. Marcellinus says, that Julian slept upon one. Hist. Aug. ii. 332.

wove very fine linen from flax of their own growth<sup>1</sup>; and the Romans, through the denomination of *Cadurea* for bedclothes, and the custom of sleeping stark naked, might thus call sheets. Juvenal says, that they were as white as snow<sup>2</sup>; and Pliny intimates<sup>3</sup>, through the synonym of *strumentum*, that they were used for bedclothes. Bed-making was an art; and sometimes the beds were so highly elevated, that they required steps or stools to reach them.<sup>4</sup>

The necessary furniture of a bed-room, both among Greeks and Romans, is stated by Pollux to have been vessels<sup>5</sup> of glass, metal, or earthenware; wash-hand basins<sup>6</sup> and ewers<sup>7</sup>, for washing the face at getting up; chairs, benches for two (*διπποι*); slippers, or woollen socks.<sup>8</sup> Chairs are mentioned by Herodotus, whereon to lay the clothes; clothes-chests by Theophrastus<sup>9</sup>; and a scrinium, or round box, at the foot of the bed, and mirror, by Propertius.<sup>10</sup> A golden Fortune was placed in the bed-rooms of princes<sup>11</sup>: a portrait sometimes hung over the bed, and there were other pictures.<sup>12</sup> Claudian mentions rooms hung round with mirrors<sup>13</sup>; and Horace, though the passage is disputed, is said to have had his bed-chamber so furnished.<sup>14</sup> Plutarch<sup>15</sup> mentions the sword suspended at the bed's head, as among ourselves.

Pollux enumerates at great length the furniture and utensils of the *gynæceum*, or women's lodgings. These consist of the instruments for weaving and spinning. baskets for the wool, measures, *αγνυθες*, or the *λεια*; "smooth stones," says Rous<sup>6</sup>, "like our smooth lace sticks, that they might not wear, which hung at the end of the threads;" scales and weights: other utensils, mixed up with those for the person, he makes a comb,

<sup>1</sup> Plin. xix. 1.

<sup>2</sup> L. iii. s. 7. v. 220.

<sup>3</sup> Ubi supra

<sup>4</sup> Suet. Delf. ed. p. 188. n. *Toro*

<sup>5</sup> *χασανα*, scatella; *αμυρ*, scaphium.

<sup>6</sup> *αουρηγιον*, lebes.

<sup>7</sup> *πυρραος ουρ*, gulturnium.

<sup>8</sup> Poll. Onomast. 467.

<sup>9</sup> 33. ed. Casaub.

<sup>10</sup> L. vii. 40.

<sup>11</sup> Capitol in Anton. Pius. Spartian. in Pescenn. Niger.

<sup>12</sup> Lamprid. in Alex. Sever.

<sup>13</sup> Beckmann, iii. 169.

<sup>14</sup> Sueton. vit. Horat.

<sup>15</sup> In Pelopidas.

<sup>16</sup> Archæol. Attic. 196.

ξανιον, a card for combing wool, a shearing knife (κομωτριον ξυρον), a mirror with its case, called λοφειον; sheers, a frontal (πα;ωπις), a mask, large and small; a broad-brimmed hat (*petasus turbinatus*, like a top, broad above and narrow below); a fan, umbrella, boxes made of alabaster, sandal or shoe-cases, and various trinkets or articles of dress.

THE END.

## ERRATA.

- Page 105. line 21. *for " cetons " read " skeletons."*  
125. 12. *for " Acropolis " read " Acropoles."*  
137. 4. *for " possession " read " position."*

THE  
CABINET OF HISTORY.

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ASSISTED BY  
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